# CLINICAL MEDICINE AND SURGERY



OLUME 40

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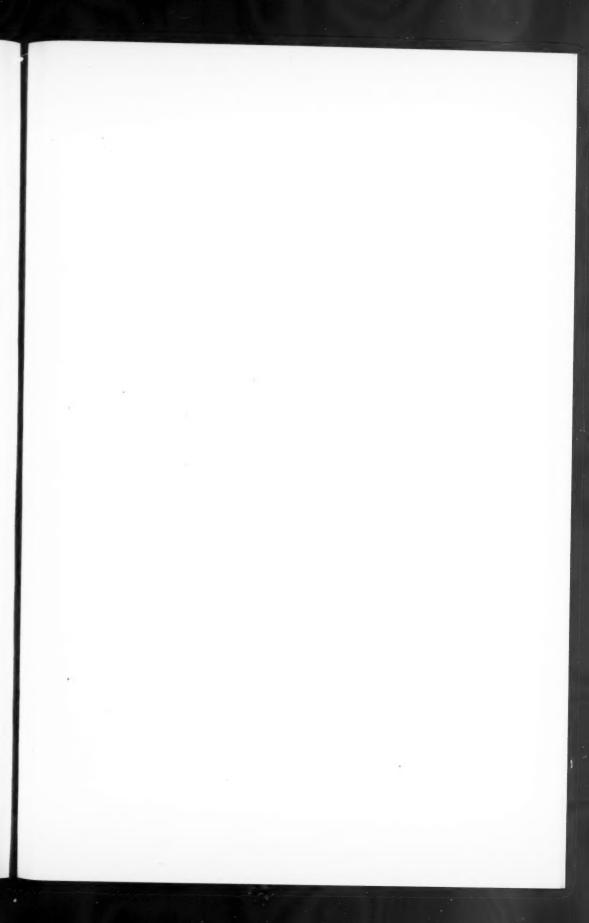
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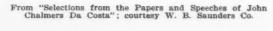
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# CLINICAL MEDICINE AND SURGERY

GEORGE B. LAKE, M.D.

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# EDITORIAL

# **Baron Larrey**

Greatest of Military Surgeons

NE wonders, sometimes, if Napoleon could have borne the titanic physical efforts and the almost unimaginable emotional and mental strains which were inseparable from his schemes of continental conquest, if he had not had by his side that wise, brave, intelligent, frank and skillful counsellor and physician, Dominique Jean Larrey.

Larrey was born, in the High Pyrenees, the son of parents too poor to give him a formal education, in 1766. His early teaching was obtained free from the Abbé de Grasset. When he was thirteen his father died and he went to live with his uncle, Alexis Larrey, who was a successful surgeon in Toulouse. Here he finished his ordinary schooling and studied medicine and surgery.

After finishing his course, in 1787, the young medicus went to Paris, where he obtained an appointment as an auxiliary surgeon in the navy, and while he was waiting for his ship to sail, passed the time in lecturing on surgery and in studying the condition of the galley-slaves incarcerated at Brest. Here he reported a case of nyctalopia, due to long confinement in an underground cell.

His first voyage, during which he experienced and described in full detail a severe at-

tack of seasickness, took him to Newfoundland, where his active mind busied itself in a careful study of the flora and fauna of that new land, and also of its inhabitants and their diseases. He was one of the first to report upon the habits of mosquitoes and the results of their bites.

Upon his return to Paris, he established himself in the practice of his profession, and, in 1789, he saw and wrote one of the early descriptions of a genuine case of anthrax, and passed an examination for the position of second surgeon of the Invalides.

In April, 1792, Larrey joined the Army of the Rhine, and during that campaign he became impressed with the sufferings and dangers of the soldiers, resulting from the fact that there was no way to treat their wounds until a battle was finished. It was here that he conceived the idea of a "carriage, combining swiftness, solidity and ease," for the evacuation of wounded men from the firing line. Thus the ambulance was born, which has saved innumerable lives and untold agony in warfare.

In 1794, Larrey was appointed Chief Surgeon of the army intended for Corsica, and about this time, during a visit to Paris, he met young General Bonaparte, then twentyfive years old and commanding the artillery.

In 1797 he went with Napoleon as chief surgeon of the Army of Italy, and from that time on he was rarely separated from the commander he loved and admired, whether he was sojourning in the palace or the camp. He went with him through his campaigns in Egypt, Syria, Prussia and the terrible debacle of the Russian invasion. He was by his Emperor's side at his greatest victory, at Austerlitz, and his crushing defeat, at Waterloo; and when that flaming meteor of destiny was ex'inguished in the shadows of Elba and the Bourbons mounted the throne, Larrey was stripped of his honors, fell into bitter poverty and almost made up his mind to go to the United States to practice surgery. Later he was restored to his positions as Chief Surgeon of the Army and of the Invalides, and passed the later years of his life in practicing, lecturing and teaching, as he had spent all the quieter months of his varied and strenuous career. He passed to his wellearned rest, July 25, 1842, being seventy-six years old.

During the height of his military career, Larrey was made a Baron of the Empire and a Commander of the Legion of Honor, and held the positions of Inspector General of the Medical staff of the French Armies, Chief Surgeon of the Grand Army and First Surgeon of the Imperial Guard.

His contributions to the progress of his profession were many and important, among them being the first demonstration of wound union by third intention; insistence upon supportive treatment after severe injuries; the importance of rest in wound healing; the value of heat in suppurating areas; trephining for middle meningeal hemorrhages and depressed fractures of the skull; an early description of what we now call typhoid fever; and the devising of the shoulder-joint amputation, the bandage and the surgical needles which are still called by his name. He also reported that wounds infested with maggots healed more kindly than those which looked cleaner. We must remember that his work was done before the days of asepsis and anesthesia.

The name of this short, corpulent, agreeable, incessantly active and highly accom-

plished man is engraved on the Arch of Triumph. His statue is at the Val-de-Grace. His memory is honored wherever military surgeons assemble. But perhaps his greatest monument is his Emperor's description of him: "The most virtuous man I have ever known."

Virtue is a product of human experience.—Walter LIPPMANN.

### The Yule Log and the Gas Heater

SOME people have a tendency to think that whatever is newest in our way of living is necessarily best, while others sigh for the spacious and leisurely existence of days which we shall never see again.

Christmas time brings home to us these differences of feeling and action with unusual power and clarity. The yule log, dragged in from the forest with ceremonies and rejoicings and laid at the back of the wide hearth where a roaring fire was kindled, was the symbol of the simple joyousness and friendliness that bubbled up around the hearthstone.

The gas heaters, which have been installed in many of the narrow and chiefly decorative fireplaces now in vogue, fail entirely to reproduce the spirit of the hearth that used to be the center of family life in the time of our grandfathers, and it seems to take a good deal of synthetic gin to arouse any enthusiasm for homely games played in their wan and flickering light, even when any members of the family stay at home in the evening to try it.

For most people, our modern, mechanized life is largely lacking in that beauty and joyousness which give meaning to our existence as human beings. The Christmas season is chiefly a time of feverish shopping for gifts, which few of the recipients really need or want, and of equally feverish computations to determine whether the available cash or credit will suffice to make the giving as ostentatious as that of our friends and neighbors.

But conditions are changing and it looks as if we were to be saved from our own foolishness by having a simpler way of life forced upon us by circumstances.

This is a good time to begin to revise our standards and to resurrect something of the

spirit which went with the yule log, if not the actual "clog" of wood itself; to make our giving an evidence of the warmth of our hearts, rather than the size of our purses; to reclaim the joy and peace for which Christmas really stands, rather than continuing our mad scramble for concocted and worthless pleasure.

The little Christmas Seals give us a chance to spread the light of our feeling of "good will towards men" into many lives where darkness is, unfortunately, the rule; and the yule log scene which they depict this year may well become for us a symbol of a renaissance of the all-embracing tenderness which was preached and practiced by the great Lover of Men Whose birthday we are supposed to be celebrating.

The first requisite for a physician is spiritual charity and the next requisites are sympathy and a sense of humor.—Dr. William Harvey King.

### Applesauce—for Others

A CLEVER fellow once remarked that he considered taffy far superior to epitaphy. In other words, applesauce is a stimulating and highly pleasant diet—to feed to other people.

The trouble comes in when a man begins to feel that he is getting less than his share of this emotional food and condiment and begins to feed it to himself. Such dietary indiscretions soon lead to spiritual bellyache, strabismus of the judgment and softening of the self-respect.

It is proper and necessary to feel sure that, whatever the appearances to the contrary, this world is proceeding along an accurately adjusted course to a determined goal. But though the world will come out all right, whether we attend to it or not, we are the sole arbiters of the progress of our individual souls, and if we do not diagnose their disorders with cool precision and treat them with impersonal vigor, they are liable to fall into an unhealthy condition.

Before one can take a cinder out of one's eye, one must recognize the cinder. Before we can straighten out a kink in the character, we must recognize that there is a kink and find out what is causing it.

Self-examination and appraisal frequently make a bitter dose, but it is a highly salutary one, if we would be in sound spiritual health.

Our friends know if our intellectual ears are dirty or our egos tumefied, but, like certain widely heralded physical unpleasantnesses, they won't tell us about it. The only thing that will save us from becoming messy is to substitute a bowl of good old brimstone and treacle for the appleasuce and take a thorough bath of honest and unbiased self-criticism.

The only criticism that can get quick action is self-criticism.—LITTLE JOURNAL FOR PEDIATRISTS.

### Be Ready!

FOR many months the industries and finances of this nation have been deadlocked. This cannot continue forever. One way or another, things are going to break before long, and when that time comes, the men who are coming to the top will be the ones who are ready—who have prepared themselves to meet new conditions, whatever they may be—and have taught the people in their environment to look to them for help and guidance.

As never before, people want to be taught—want to understand about things, so that they can make intelligent choices among various alternatives; and those who, having something of real and lasting value to the public, are now presenting it in a forcible and attractive way, will find their services increasingly in demand.

No previous century has seen progress equal to that made in medical science during the past decade or two. The story of modern medicine is more dramatic and fascinating than any novel—particularly when people come to realize that by acting upon the suggestions contained in that story they can add years to their lives and life to their years.

All physicians are (or should be) proud of their profession and enthusiastic about it. That is a fine and necessary part of the equipment of a man who would take his proper place in the life of his community, but is only one of the three factors of such success, the others being a knowledge of what modern medicine can do to make and

keep people well and the power and willingness to pass on that knowledge to those who should have it—which means all of the people.

Knowledge is gained by sincere, regular and intelligently directed study—the thorough reading of one or more high-class, up-to-date medical journals and of one or more sound books every month. When one is full of information, one becomes eager to impart it.

The distribution of knowledge may be by personal conversations, by brief and impersonal articles in the local papers, written in layman's language, and by talks before civic groups—women's clubs, parent-teacher associations, schools, Rotary, etc.,—also in laymen's language. The technic of such distribution is well set forth in Col. Darby's article on "Educational Presentation," in the September, 1933, issue of this Journal.

If medical men will make up their minds that nobody is going to hold or push them up to the place they ought to occupy in the body politic, and will set about doing the job themselves, they can do it. Otherwise they have no one but themselves to blame for whatever happens. If we want to go somewhere worth while we must start something now.

A follower is as a leaf swept along by the wind. When the wind ceases, it falls to the ground.—
J. Krishnamurti.

### The Tugwell Bill

A BILL is in process of formulation in Washington, which is intended to replace the Food and Drug Act of 1906.

This astonishing document, which can now be studied in its present form, could, if passed as it is, come near to ruining most of the

druggists and pharmaceutical manufacturers in this country.

There is no doubt that the Food and Drug Act needs some revision, in order to prevent dishonest manufacturers and dealers from using in their advertising, if not on their labels, grossly false and misleading statements, and to correct certain other abuses which have come into vogue since 1906. But there is dynamite and destruction in a paragraph like this, when one realizes the woodenheaded manner in which federal regulations are generally enforced:

"An advertisement of a drug shall be deemed to be false if it includes the name of any disease for which the drug is not a specific cure, but is a palliative, and fails to state, with equal prominence and in immediate connection with such name, that the drug is not a cure for such disease."

Since there are no drugs which are actually "specific cures" for named diseases, and only a very few near-specifics, how is the manufacturer of a valuable (but non-specific) product to bring it to the attention of physicians, so that they can make use of it in suitable cases, if he may not tell them what it is good for? The quacks and nostrum venders undoubtedly need some curbing of their unwholesome activities; but this looks rather like throwing out the baby with the bathwater.

Since the physicians depend so much upon the effectual performance of druggists and manufacturers of pharmaceuticals for the success of their healing efforts, it behooves every medical man in the country to study such portions of this bill (Senate Bill 1944) as will or may directly affect the people who supply him with drugs, and inform his U. S. Senators and Representatives what he thinks about it.

### DECEMBER

(Cinquain)

Keen swords

Of rays flashing

From frost crustals herald

The cold solstice when life's master

Turns north.

# **LEADING ARTICLES**

# Adrenal Inertia

Diagnostic and Therapeutic Considerations

By D. C. Ragland, M.D., Los Angeles, Calif.

A CAREFUL search of the endocrine medical literature has failed to disclose any specific information on the method which I have been using in overcoming adrenal inertia.

The type of adrenal inertia that I am considering is functional adrenal-cortex insufficiency, not true Addison's disease with definite cellular destruction. I prefer the term "inertia" because it connotes sluggishness. These glands have sufficient working capacity and, once the inertia is overcome, they seem to regain their efficiency.

I wish to stress the part played by the adrenal cortex in the control of oxidation in the body. Animals deprived of their adrenals, even though kept alive by injections of a potent extract of adrenal cortex, are still sensitive to cold air. In human beings, we hear about cold hands and feet, the need for more clothing than is ordinarily required and an inability to react to cold water. The skin, lips and nails frequently have a bluish color, showing poor capillary circulation.

In this connection it is important to learn that failure of experimentally adrenalectomized animals to adjust themselves to changes of external temperature has been made the basis of a biologic assay for the determination of the potency of adrenal cortex extracts (D. Perla and J. M. Gottesman, Proc. Soc. Exper. Biol. and Med., Feb., March and June, 1931).

Years ago, Sajous expressed the idea that the adrenals produce adreno-oxidase as well as adrenalin. There is little doubt in my mind that this substance is produced by the adrenal cortex. Now come S. W. Britton and H. Silvette (Am. Jour. Physiol., May, 1932, c, p. 701) with experimental evidence to show that the prepotent function of the cortex is the regulation of carbohydrate metabolism. In animals deprived of their adrenals, the injection of a potent extract is followed very early by increasing amounts of blood-sugar, even to hyperglycemic levels. With this change, the signs of insufficiency disappear.

All workers with the Swingle-Pfiffner extract report sharp increases in the strength

of their patients with true Addison's disease. Rogoff (Jour. Am. Med. Assn., Oct. 15, 1932, xcix) shows the same result in both human beings and lower animals. Does not the metabolism of sugar mean its oxidation and reduction? This is the way heat and energy are liberated for use in the body.

Rogoff stresses the point that it is not the absence of hormone per se, but the altered metabolism that causes the symptoms. This altered metabolism is the result of a lack of the activating ferment, which results in deficient oxidation.

#### Diagnosis

Much has been written recently about hyperinsulinism, which is attended by low bloodsugar values, frequently as low as 40 or 50 mg. Seale Harris has described the symptomcomplex as follows: Nervous irritability and anxiety, weakness and fatigability, tremor, muscular twitching, impairment of vision, unsteadiness of gait, syncope, excessive perspiration, loss of emotional control, with convulsions and even coma. These symptoms are similar to those following excessive doses of insulin. It is true that an adenoma in the pancreas, made up of islet cells, could produce excessive amounts of insulin, with the same symptoms. But, are we justified in confining our investigations solely to the pancreas when such a complex confronts us? I, for one, do not think so. Many of the symptoms mentioned are too frequently seen in adrenal cortex inertia.

While on the subject of oxidation I want to say a few words about the basal metabolic rate. Most workers seem to think that this test gives us information only about the thyroid. I believe there is enough evidence at hand to show that the adrenal cortex plays a large part in oxygen consumption. I have seen many patients with a minus basal metabolic rate, who had received no benefit from thyroid feeding but responded quickly to adrenal cortex.

Rogoff emphasizes two important diagnostic points. One is an aversion to fatty foods. The other is the production of dull pain, radiating toward the pelvis, by moderate pressure

over the costo-lumbar angle. He says, "In a number of cases this sign has enabled me to predict the type and extent of degeneration of the glands, and the prediction was later confirmed at autopsy. The sign is sometimes present bilaterally in severe cases of exophthalmic goiter, but in these cases the pain has not been observed to radiate toward the pelvis." I believe this sign to be due to neuralgia of the twelfth dorsal spinal nerve—the socalled illo-hypogastric nerve.

He has observed distress in the joints, especially the knees. Interscapular, subscapular and lumbar aches have been noted. "These symptoms may be related to the muscular asthenia," he says. He is right, but the aches are more neuralgic than muscular. The muscles involved directly are the muscles of the blood-vessel walls. Accompanying each spinal nerve as it emerges from the intervertebral foramen, is a vein and an artery. The muscle cells of the vein walls, when deprived of the oxidizing principle of the adrenal cortex, lose their tone, the wall becomes weak, the vein dilates and presses the nerve against the bony or cartilaginous part of the foramen. The result is pain along the course of the nerve pressed upon; in other words, neuralgia. Persistent neuralgia is a sign of adrenal cortex inertia.

There is an involuntary muscle in the body whose behavior we can easily observe and study. I refer to the iris of the eye. I always study the behavior of this muscle in a dark room. When a light from a transillumination lamp is flashed into the eye, the iris contracts. When the adrenals are sufficient, this contraction is steadily maintained for a minute or more. When the adrenals are inert it lasts for only a fraction of a second, and then the iris begins to relax and the pupil dilates to almost the same size that it was before the stimulation of the light was applied. This observation is not original, but I do not remember who first described the phenomenon.

At this point I must mention the imbalance of pulse pressure. The blood-pressure in laboratory animals cannot be compared with that of man, because man is a biped, standing on his hind legs, and with no valves in his portal veins. When the tone of these vein walls is reduced, the pulse pressure falls when the patient is erect, but rises when he is recumbent.

In the Bulletin Médical, (June 18, 1932, xlvi, p. 433) P. Braunstein and J. Stephani say that scintillating scotoma is a sign of pulmonary tuberculosis. To me, these scotomata are signs of cortical inertia, and we know that there is, very generally, some adrenal inertia in pulmonary tuberculosis.

F. O. Schmitt (Am. Jour. Phys.ol., Dec. 1930, xcv, p. 650) concludes from his experiments that "the action potentials in the nerve are

primarily of an oxidative nature and that the oxygen used in the process requires activation by the respiratory ferment. A nerve deprived of oxygen rapidly loses its power to conduct the nervous impulse but soon regains it if oxygen is supplied." It has seemed to me, that the adrenal cortex supplies this necessary activating respiratory ferment. If that is so, we should have little difficulty in explaining the bizarre manifestations of hypoadrenia (socalled neurasthenia).

Our diagnostic criteria for adrenal-cortex inertia are:

- 1.-Muscular weakness and tremor.
- 2.-Marked imbalance of pulse pressure.
- Sensitiveness to cold, with capillary sluggishness.
- 4.-Weak iris muscle.
- 5.—Leukopenia.
- 6.-Imperfect nerve impulses.

#### Treatment

The method I use for overcoming adrenalcortex inertia was suggested by the writings of Dr. Geo. W. Crile, of Cleveland, Ohio. It is diathermy through the body antero-posteriorly, at the level of the adrenals. Dr. Crile has shown that diathermy through the liver will actually raise the temperature of the organ and thereby maintain its functional activity. It seemed to me that this could be applied to the adrenals. By increasing the temperature of these glands, one would induce a greater flow of blood and lymph through them. This would increase their functional activity and hormone production; thus the inertia would be overcome. However, gland feeding must be given simultaneously, to support the glands and encourage their continued activity. With patients who object to hypodermic medication, I have found this method to be very effective, as the following case reports show:

### Case Reports

No. 1.—H. A. S., August 27, 1932, age 47. For 2 years had had "spells" in which he had almost fainted, and which had become more frequent of late. He had been unable to work because of fear of falling during the attacks. Examination showed: Tremor of muscles; weak iris; blood pressure, standing 116/94, reclining 126/90; right upper first molar dead; right tonsil larger than left; much gas in the abdomen, with an acid colon.

The dead tooth was removed and adrenal cortex feeding started. Sept. 13, 1932, the blood pressure, standing, was 108/80, reclining 118/78. Diathermy through adrenals was given, 1500 milliamperes for thirty minutes. This was repeated on Sept. 17 and 22, and Oct. 6, 1932. Since then the patient has had no "spalle" and has been very active.

6, 1932. Since then the patient has had no one spells" and has been very active.

No. 2.—Mrs. W. A., age 42, on October 14, 1932, had had a stiff neck for two weeks, with pains in the back, epigastrium and hands. Could not sleep well. Examination showed two dead and infected teeth; white line on the skin; weak iris. Blood pressure, reclining 140/96; standing, 110/80. The heart had a galloping rhythm, with an occasional lost

beat; heart duliness extended 3 cm. to the left of nipple line; there was a distinct systolic murmur.

Adrenal feeding was started, with diathermy. On Oct. 18, 1932, stiffness in the neck was gone; diathermy repeated. On Oct. 21, diathermy repeated; blood pressure, 116/76 standing; 116/66 reclining. On Oct. 26, blood pressure, standing, 116/66; reclining, 110/70; heart murmur gone, rhythm regular, heart dullness 1.5 cm. to left of nipple line. This result was obtained even though the two dead teeth were still in the mouth. These have since been removed and the patient continues to feel well.

No. 3.—Was the most outstanding case of all. E. J. S., male, age 63. On Easter Sunday, 1930, he suddenly became weak in the legs and fell to his knees. I saw him first on May 6, 1930. The family history was not informative. Past history was irrelevent except for two things: First, as a child he could not jump into the lake in the spring like other boys (he lived on the shore of Lake Ontario). The cold water always made him blue and sick for two or three days. Second, in June, 1929, he had had mild colon bacillus prostatitis, which yielded promptly to diathermy. On May 6, 1930, the relevant findings were: weakness of legs; tremor of hands and numbness of the soles of feet; knee jerks present; weak irls; blood pressure, standing, 130/86; reclining, 140/86. The oculist reported an absolute sectoma in the temporal field of the left eye, beginning at the fixation point.

Accordingly, adrenal cortex, 1 gr. daily of the dry powder, was given by mouth. This was continued until June 11, 1930, with no improvement; in fact, his legs were weaker, the calf muscles were quite flaccid, and knee jerks were absent.

On account of my own illness at this time, the patient passed into the care of another. He was hospitalized; there were many consultants; much laboratory work and tests were done. The net result was: the patient was sent home, his wife being instructed to

care for him for the balance of his life, in a wheel chair.

One of the neurologists consulted informed

One of the neurologists consulted informed me, over the telephone, that he was reasonably sure that this case was one of spinal cord sclerosis, but that he had not been able to classify the case as to type.

In August, 1930, the patient returned to me. I still could not see anything the matter but adrenal-cortex inertia. In the language of Dana, this was a case of neurasthenia gravis. He was advised to take 2 gr. daily of desiccated adrenal cortex. By January, 1931, progress had been slow but the patient was out of the wheel chair and able to walk with a cane. At this time he could not stand still and maintain his balance.

Accordingly, an electrode, 5 by 8 inches, was placed in front over the epigastrium, and a smaller one, 3 by 8 inches, on the back, just below the angles of the scapulae. Fifteen hundred (1,500) milliamperes of diathermic current were used for thirty minutes. Such a treatment was given every four days for four times.

This seemed to overcome the inertia, for improvement became more rapid from then on. The gland feeding was continued, and by October, 1931, the patient was walking from three to four miles daily, driving his own car, swimming, working and, in short, living a normal, useful life.

My appeal is: Use diathermy\* on the next adrenal case that does not respond readily to adrenal feeding.

If we are to be of real service to our gland cases, we must feed, add to, build up, get going and keep going the patient's own glands. In so far as we do this, we are helping our patients, rather than exploiting them.

\*Since writing this, I have had the pleasure of reading an article by Harry Benjamin, M.D., of New York. I concede to him priority in the use of diathermy for correcting adrenal inertia.—D.C.R. 408 S. Western Ave.

### GOVERNMENT AND THE CITIZEN

While the most important thing in the life of every citizen is a sound, stable and reliable government, many appear of the belief that the maintenance of such a government is no concern of theirs; that the government of the United States is some sort of a self-created thing in perpetual motion; that the citizens have nothing whatever to do with it save to find a way to annex some of the taxes other citizens have paid.

This utterly false concept of government—and one is forced to assume when he carefully studies the evidence that it has been intentionally induced—has done a vast amount of harm. Until this false belief is destroyed and the average citizen is made to realize that he is responsible for the kind of government he experiences—and that means, naturally, how much he must pay to maintain it—no evil allied with government will be corrected.—COMMITTEE ON AMERICAN EDUCATION.

### MIND AND MATTER

No one has ever analyzed Mind, nor identified mind with the brain. The nerves and brain are matter. The brain is the organ bringing mind into effective activity. The activity of matter is a metrical description of certain aspects of the activity of mind.—Arthur S. Eddington.

# Reading Disabilities in Children

By P. E. Kubitschek, M.D., St. Louis, Mo.

THE majority of cases of reading disability which we have seen at the Child Guidance Clinic have been sent to us by the schools, because of lack of progress, frequently associated with almost every conceivable type of behavior and personality problems. Invariably, however, these "reading disabilities" cases failed to make satisfactory school progress after the second or third grade, at which time ability to read satisfactorily is such an important tool for the acquisition of academic knowledge.

Our first procedure is to determine, by intelligence tests, the general level of intellectual ability and, routinely at this time, we include some simple tests to determine the individual's reading ability. These include speed, accuracy and ability to recognize words out of their context. These tests immediately give us an indication of the individual's intelligence, such as that he should be able to carry his work in his grade placement, and show whether he is of superior, average or inferior ability.

In the cases of the reading problems we usually find that, although the child is of average or even superior ability and may have been carrying work rather unsatisfactorily in fourth or fifth grade, that its ability to read compares only with that of the average youngster in the second or third grade. Among the younger individuals; that is, in the first or second grade, we find the common complaints of inability to remember the meaning of words, difficulty in learning to write, and a tendency to reversals. The tendency to reversal may also be rather common in the older individuals.

### Cerebral Dominance and Association Systems

Study of this type of problem has been most extensively carried on by Orton, who considers it definitely linked up with lack of cerebral dominance and associated with some degree of left-handedness, which is considered the outcropping of a recessive character. Where the individual is definitely or purely left-handed, the right hemisphere is the dominant one and the left eye is the master eye. The reverse is true in cases of definite righthandedness. Through the intermarriage of left-handed individuals with others, a certain number of intergrades are presumably produced; that is, individuals who are not purely dominant in either the left or right hemisphere and, in these, it is assumed that there is an element of functional interference which causes the tendency to reversal and interferes with the normal ease and rapidity with which words are correctly recognized and images or engrams built up. This difficulty seems to be sexually linked to a certain extent, as it has been found to occur more frequently in males than females, the ratio being almost three to one.

While Orton places the emphasis of his study and interpretation on this lack of cerebral dominance, it has been my experience that evidence of lack of cerebral dominance, as well as history of left-handedness, is frequently absent and, in some cases where such evidence is objectively found (as, for instance, use of the right hand from infancy on with left eye as the master eye), causes no appreciable difficulty in the acquisition of reading ability.

I feel that a certain percentage of these cases are handicapped by either qualitative or quantitative deficiency in those association systems essential for the building up of engrams in the language zone. This building up requires integration at a higher level than some of the other functions. For instance, on the visual and auditory side (the two sense organs most essential for learning to read) we may consider the recognition of objects and of sound as function on the first level; the ability to recognize color and objects as such and to understand the meaning of various sounds (such as a whistle), words and the like, as ability on a second and higher level. The ability to learn to read requires building up of associations on a third and highest level, in which the recognition of sounds, words and also objects, through visual training, is translated into terms of written and printed forms.

I am convinced that a certain number of fully normal or even superior individuals are lacking in average capacity in this respect, just as others have less than average capacity in the fields of music appreciation, color discrimination and the like. This corresponds, of course, to the older concept of word-blindness, This capacity is deficient rather than absent and, by accentuated training, both qualitative and quantitative, I believe that, in practically all cases, it can be brought up to a relatively satisfactory state.

The present generally used methods of teaching reading differ considerably from those used twenty or thirty years ago. At that time training started with the learning of the individual letters of the alphabet and a firm grounding in their visual and auditory symbols; then the building up of the alphabetic units into monosyllabic words and, gradually, words of increasing size. This method was slow but relatively sure.

By the present methods-the socalled "see

and say method"-the alphabet is not learned, but words and even phrases are learned, in association with pictures illustrating the meaning of the word or phrase and with emphasis on the sound or auditory equivalent. For perhaps 95 percent or more of children, this method is effective, more interesting, and far more rapid. However, for those handicapped by either the qualitative deficiency in association processes or by lack of cerebral dominance (the intergrade left-handedness), the ability to learn by such method is beyond the capacity of the individual and he usually falls far behind the average child, for a time compensating for this by increasing acuity on the auditory side and memorizing, rather than learning, the contents.

In the matter of remedial training, the emphasis must be both qualitative and quantitative: qualitative by the utilization of all possible avenues of sensory impression for the building up of associations, such as writing out or printing the words, looking at them and sounding the word completed as one writes. In this way the motor component is brought in as reinforcement for the abnormally weak visual and auditory components; quantitative by daily drill in this type of training for periods of from 45 minutes to an hour and over a long period of time—usually a year or more.

In addition to this, increased emphasis should be placed on reading matter which is relatively easy and much of the reading should be done aloud, with someone who is able to correct errors and to stress phonetics. Perhaps the most important aspect of this problem is the prevention and early recognition of these difficulties, as building up deficient ability in the early years is much more easily and quickly accomplished than in cases where the youngster has struggled along, with difficulty and error, for several years.

I think one should be on the lookout for such problems in youngsters whose family has a history of left-handedness, particularly if they show any difficulty in development in the language zone which is out of proportion with their rate of development physically and in a general sense mentally. That is, although they walk at normal age and the general reactions indicate satisfactory intelligence, they may be unusually slow in learning to speak, or their speech may be indistinct and show a tendency to stuttering (however, stuttering during the early years is so frequent that its value as an indication of this difficulty is minimized).

When the child begins to write, and particularly during the first grade, if a tendency to reversals of numbers and letters and socalled mirror writing persists, together with slowness in learning to read, I think that it is very advisable to place immediate emphasis

on the training measures mentioned; certainly if encouraging progress is not manifested by the end of the first year's work. At these early ages, of course, the period of time must be cut down, as the child's ability to concentrate usually varies from 20 to 30 minutes.

#### Diagnosis and Treatment

Reading cases should be properly diagnosed, in order that the specific reading disability can be determined. This diagnosis can be done in a clinic which is provided with standardized tests suitable for the discovery of reading and spelling retardation and the discrimination of the various forms of the difficulty. This is important, because the remedial treatment varies somewhat with the findings of the diagnosis.

In those situations in which clinical help is not available, the diagnosis can be made from the reading of a book at the age level of the subject. In such cases, the reading should be timed and the type of error carefully noted. In general, the errors seem to fall into the following groups: confusion of vowel sounds; reversal of an entire word; reversal of adjoining letters or syllables; omission and substitution of words or syllables; and those errors caused by general confusion of word patterns and lack of knowledge concerning analysis of word structure.

Reading disabilities vary considerably in extent. The type demanding the most intensive treatment is that termed "strephosymbolia" by Orton, and is characterized by reversals, e.g.; "on" for "no"; "was" for "saw"; "dog" for "boy" or "god"; "bay" for "pay"; "ball" for "doll"; etc. The confusion of orientation necessitates some individual instruction by the kinesthetic method which, in its utilization of a motor factor, results in the establishment of a sense of direction in word and letter order.

The kinesthetic method, briefly, is as follows: The sound or word to be learned is written in large script or manuscript writing, depending on the form taught in the child's school. The child repeats the sound or word aloud and traces it with the first two fingers of the hand used in writing and then repeats it and writes it from memory. This act should be performed until the sound or word is thoroughly learned. As a rule the child has the word learned after two or three tracings. This method is suitable for children who have difficulty in beginning to read and write or those who show a very strong tendency toward reversing. For those subjects who have established some of the sound-word associations, a plan which emphasizes the analysis of word structure is helpful, reserving the kiaesthetic method for those letters or words with which the subject has particular difficulty. The instructor should watch for any tendency to learn the words by spelling out the individual letters and eliminate it as soon as possible, as this forms an interfering habit in the learning of a suitable method of attack for unfamiliar or polysyllabic words.

The definite and detailed procedure may be best described as it is used in a typical case. A child, nine years old, second grade, had a marked reading disability, evidenced by letter and syllable reversals and inability to distinguish sounds. He was unable to distinguish any vowel or vowel combination sounds and knew only a few of the consonant sounds. Since the confusion of vowel sounds constituted in this case, as in the majority of cases, quite a major part of the problem, a list of sounds was used, including all the vowels and vowel combinations as "ea," "oa," "oo," "ou," "ai," etc.; vowel-consonant combinations, as " "er," "ow," "ew," etc.; and consonant "ar, and consonant combinations, as "tr," "th," "br," "ch," "sh," "wh," etc. The subject said the sounds and then wrote them from memory. In some instances the child seemed unable to overcome reversing and it was necessary to resort to the kinesthetic method.

After the child could pronounce and write all these sounds, he was told to say a word containing a particular sound and then to write it from memory. The subject did this for all the sounds listed. After a few lessons with this procedure there was an improvement in the recognition of words and in spelling, which had been, as it is frequently, more retarded than the reading. This training provided the subject with a proper method of attack, but had no appreciable affect on the speed of reading. By providing the child with meaningful material to be read aloud, speed was increased. New words, that can not be determined phonetically, were learned by the kinesthetic method, since the child could learn only by writing.

There appears, in some cases, a spelling disability so pronounced that it demands special treatment, even though the reading retardation may not be so great. For example, a child eleven years of age, in the third grade, could read all the words in the third reader, but could not write them when they were dictated to him. He could not write the alphabet and had special difficulty when trying to write "b-d," "t-d," "g-q" and "x-z." He had no sound-letter associations, consequently no idea of letter sequence—in fact, he did not know the first letter of a word.

The first step in the treatment consisted in teaching him to write the letters of the alphabet. This was done by having him trace the letters written in script, after which he was in a position to learn the sounds and words. Since there was an improvement in spelling,

resulting from a method primarily kinesthetic, there occurred, indirectly, an increased facility in word recognition.

### Specific Procedure for Re-Education of Reading Disability\*

1.—Write the list of sounds† on a piece of paper and have the child look at the written sound and pronounce it correctly. Show the sound in a simple word. The child must learn to recognize and pronounce the '.st of sounds. If the child uses manuscript writing at school, the sounds should be written in manuscript writing.

If the child cannot write the sound, the instructor writes it in large script and has the child say the sound and then trace it with the first two fingers of the hand used in writing. Then have the child say the sound and write it from memory. Repeat this procedure until the child can write the sound from memory. Show the child the sound in print.

2.—The instructor dictates the sound to the child. The child repeats the pronunciation and then writes it from memory. Steps 1 and 2 are continued until the child can write all the sounds from dictation.

3.—Have the child pronounce the sound and make up a simple word containing the sound. Have the child write the word.

4.—Dictate words containing the sounds. Have the child repeat the pronunciation of the words and then write them. Simple words containing one or more of the sounds learned are suitable—chair, fright, shell, teach, etc.

5.—Have the child read aloud. Have the child pronounce correctly the words missed in reading. Then have the child say the word and write it from memory. At this stage the child will be able to read many new words. Speed of reading and accuracy will improve with practice.

4746 McPherson Ave.

\*This section is contributed by K. Amlin, a medical student, who has been carrying out this phase of our work for two years, with conspicuous success.—P.E. K.

	tList of Sound	ds:
ch-chain	u-us	esh-mesh
sh-she	oa-coat	ick—sick
ai-wait	ow-show	ack-back
ay-day	aw-saw	eck-deck
ca-read	br-bring	ock-lock
cc—see	fr-fresh	uck-duck
ar—far	cr-cry	th -this
or-for	pr—print	thr-three
er-her	fl—flash	st-stop
ir-first	bl—blow	str—strong
ur-turn	cl—class	00-500n
ill—611	pl—play	EW-BEW
ell-fell	tr—tree	gr-green
all—fall	ing-sing	dr-drink
ou—out	ang-sang	wh-when
OM-COM	ong-long	ink-think
oi—join	ass—grass	ank-tank
oy—boy	ess—dress	tion-nation
a—at	iss—kiss	en—ten
e-set	ish—dish	an-man
i—it	ash—mash	in-win
o-not	man -masti	an will

# The A.B.C. of Cancer

5. Tumors of the Breast

(Part II)

By Charles F. Geschickter, M. D., Baltimore, Md.

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Chronic Cystic Mastitis and Comedo Cancer ODERN conceptions of chronic cystic mastitis have drifted away from the inflammatory theory, and are concerned with its relation to neoplasia and malignancy and to functional disorders of the breast. The disease affects women during their sexual life and may be classified in two types: one characterized by epithelial hyperplasia and the other by cyst formation. When cysts predominate, the simple term cystic disease of the breast is apt; and where epithelial hyperplasia predominates, the term adenosis of the breast is most descriptive. The cystic features are associated with the name of Reclus and the adenoid features with the name of Schimmelbusch. Either cystic dilatation of the ducts or comedo cancer may complicate the adenoid or Schimmelbusch type of chronic cystic mastitis. On the other hand, cystic disease, which is far more common than adenosis and in which large cysts of the blue-dome type are found, does not give rise to true adenosis and is not related to cancer.

Custic Disease of the Breast: Cystic disease of the breast occurred most often between the ages of thirty-five and forty-five, in a series of 500 cases. One or more lobules of the breast, or of both breasts, are involved by cystic dilatation of the ducts, and one or more cysts, with clear or cloudy fluid. may form and attain the size of a fifty-cent piece. Cysts usually occupy a mid-position in the breast between the nipple and periphery. In the material studied they never persisted during pregnancy and rarely formed in parous women until four or more years after the birth of the last child. The large cyst forms a definitely palpable and freely movable nodule in the breast, which may spontaneously regress during the course of the disease. Under the microscope, the lining of the cyst may be reduced to mere fibrous tissue or cuboidal epithelium of the pale-staining eosin type may persist, showing various phases of degeneration and desquammation. In the smaller ducts and tubules there is a similar epithelial activity, which tends toward desquammation (Fig. 2). We have never observed cancer developing a true blue-dome cyst, and local excision usually suffices for a cure. Where the breasts are diffusely involved they may be watched and, if a distinct lump develops, this may be explored.

Cystic disease of the breast is apparently associated with a functional increase in the

storage capacity of the breast which is a necessary forerunner of secretory activity in this organ. The follicular hormone controls duct growth during sexual life and increases the capacity of the duct system by causing expansion of the tubules and budding at the lobular end. Marked epithelial proliferation



Fig. 2.—Cross section of cystic disease of the breast containing two blue-dome cysts. Note that there is a diffuse dilatation of the ducts, as well as two larger cavities within the breast.

in the lobule itself, however, is concerned with secretion in response to corpus luteum and is seen in Schimmelbusch's disease, rather than in cystic disease of the breast.

Adenosis of the Breast: The condition of adenosis of the breast or Schimmelbusch's disease, predominated by epithelial hyperplasia in the lobule, is more rare than cystic disease (in the ratio of about 1 to 5) and is usually a very diffuse process. The lobular hyperplasia is stimulated by the corpus luteum, preparatory to secretory activity and child bearing. The hyperplastic change is always accompanied by cystic dilatation of the ducts, which provides the storage capacity for secretory activity. Physiologically, corpus luteum does not function without preceding stimulation by follicular hormone, and hence the cystic dilatation seen in adenosis of the breast.

In 100 cases of Schimmelbusch's disease, the age distribution was predominately between 25 and 50, the patients on the average being slightly older than those with cystic disease. The involved breast is lumpy or shotty and may have a saucer-like edge. Under the microscope, the terminal tubules within the lobule of the breast show marked epithelial activity. The tubules are increased in size and packed solidly with duct adenoma, and papillomatous projections form. At the periphery, the blind ends of the tubules which form the potential acini show a diffusely infiltrating hyperplasia, almost akin to that seen in scirrhus cancer. The small multiple

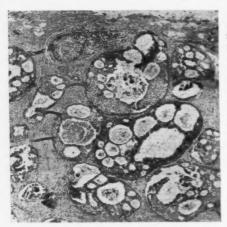


Fig. 3.—Photomicrograph of comedo-carcinoma oc curring in Schimmelbusch's disease. Many of the ducts are filled with epithelial hyperplasia of the benign type, but in the larger ducts malignant epi thelium is seen.

papillomas seen must be distinguished from the larger papillomas observed in the main ducts of the breast in the condition described as benign papilloma. The papillomatous formations of Schimmelbusch's disease are functional, rather than neoplastic. Similarly the plugging of the ducts with epithelium and the growth at the periphery of the lobule must be distinguished microscopically from cancer. Here again, the change probably is functional, rather than neoplastic. The distinction is best made by the high power of the microsope, which fails to disclose malignant epithelium. The basement membranes of the tubules are intact and the larger ducts are not infiltrated. A bloody discharge may, however, find its way into the larger ducts and appear at the nipple.

Schimmelbusch's disease, or adenosis of the breast, may spontaneously regress, even in its advanced stages. On the other hand, the epithelial hyperplasia may be followed by definite neoplasia, which takes the form of comedo carcinoma.

Comedo Cancer: Comedo or duct cancer is characterized by definite tumor formation which may invade the entire lobule of the breast in women usually 45 or over. Under the microscope, areas of benign adenosis or Schimmelbusch's disease predominate, but definitely malignant cells infiltrate the tubules and ducts and at points break through the basement membrane. Under high power, mitotic figures are frequent, the nuclei are large and vesicular, but most of the cancer cells remain confined by normal boundaries (Fig. 3). This type of cancer, following in the wake of and coexisting with Schimmelbusch's disease, is of low degree of malignancy and rarely involves the axillary lymph nodes. The condition, how-

ever, is truly malignant and in the later stages metastasizes to distant organs and infiltrates the periphery of the breast, after the fashion of scirrhus cancer. For this reason the complete operation should always be done for comedo cancer, even though benign adenosis or Schimmelbusch's disease predominates the microscopic section. This is particularly a good rule from the practical standpoint, since in many instances cancer, infiltrating the larger ducts after the fashion of primary comedo carcinoma, is not accompanied by Schimmelbusch's disease and is, in reality, secondary to a more malignant type of cancer of the Paget's, scirrhus or medullary type, extending by way of the ducts.

The treatment of benign adenosis of the breast is a more delicate problem than is that of comedo cancer. While definitely a benign lesion, the possibilities of the appearance of comedo cancer must be considered. Because of the diffuse involvement of the breast in Schimmelbusch's disease, a simple excision often is not possible without mutilation of the breast. In women under forty, where the breast has been explored for adenosis and the condition proved benign under the microscope, no further surgical procedure is necessary. The patient should be carefully watched, however, from year to year, for the appearance of any definite tumor. Spontaneous regression may occur. In women about the menopause, however, the probabilities of comedo cancer complicating Schimmelbusch's cancer is even greater. In such cases irradiation of the pelvic organs may be used to bring about involution of the condition. Adenosis must, however, be carefully distinguished from cystic disease. Where cystic disease predominates, adenosis of the precancerous type is not the rule and such treatment is not called for.

### Scirrhus and Medullary Carcinoma

Scirrhus carcinoma is the most prevalent type of breast lesion. There are over 1,500 such cases in the laboratory. Meduliary cancer is the most malignant condition arising in the breast and is fortunately far more rare (150 cases). Both are diseases of the senile breast and occur toward or after the menopause. Both types of tumor arise in the breast lobule, in the majority of instances. This is shown by castration experiments. If the ovaries are removed before puberty, true lobules fail to develop in the breast, and such breasts without lobulation are relatively immune to cancer of the scirrhus and medullary type.

Scirrhus Carcinoma: Clinically the early sign of scirrhus carcinoma is the small, hard, fixed lump which soon exerts traction upon the overlying skin, causing dimpling or retracted nipple. This process of fixation can be

brought out clinically by having the patients move their arms upward. Involvement of the axillary nodes, lymphedema of the skin (called pig-skin appearance) and definite nodules in the skin (cancer en cuirrase) are all signs of late and hopeless cancer and should not be relied upon if we hope to develop means of diagnosing the disease in its earliest stages.

The most important sign on examination is the palpation of a definite, firm lump which transilluminates dark, without accompanying lumps in either breast and without a history of disappearance and reappearance. This, upon exploration (which is always warranted in such instances), reveals the typical microscopic picture in which cancer cells infiltrate fibrous tissue in strands or cords.

Medullary Cancer: Medullary cancer forms a larger and more rapidly growing tumor in the breast. Histologically the cells are larger than those found in scirrhus cancer and the tumor tissue grows in coils, with hemorrhagic and necrotic areas near the center. Liquifaction of the central area of necrosis may give rise to the socalled cancer cysts of the older authors. Both scirrhus and medullary carcinoma should be treated by the complete operation for cancer following exploratory excision, if skin or bone or lung metastases have not already supervened. The five-year cures in scirrhus carcinoma are 30 percent, and in medullary carcinoma 20 percent. Where the lesion, because of metastases, is inoperable, palliative irradiation may be employed. In a certain number of these hopeless cases the breast must be amputated for relief of pain.

### Xanthoma and Fat Necrosis of the Breast

In rare instances, dermoid cysts, lipoma, osteoma or chondroma may be found as an isolated tumor in the breast. More frequently lipoid lesions of the xanthoma type will be found, which clinically may be confused with carcinoma.

Fat Necrosis: Simple fat necrosis may develop in a localized area of the breast, usually following trauma. Cholesterin crystals form, calcium is deposited and foreign-body giant cells appear. The result is a small, firm nodule which must be distinguished from cancer. The lesion is benign and simple excision may be done for diagnosis.

Xanthoma: Larger accumulations of lipoid degeneration, characterized by the appearance of foam cells, hemorrhage, giant-cell invasion, wandering cells of the connective tissue type and the appearance of the orange-yellow color, are spoken of as xanthoma. A benign, circumscribed nodule is formed, which may be difficult to distinguish from cancer until the color of the tumor is disclosed by the surgeon's knife.

Liposarcoma: Liposarcoma is a rare condition of the breast, which rapidly metastasizes

to the axillary nodes and usually proves fatal. Cases have been reported in males as well as females, and usually occur in adults over 50. The breast is diffusely infiltrated and indurated and the overlying skin may give the appearance of abscess. At operation, a mass of infiltrating growth is usually disclosed, with clusters of secondary nodules, matted together with the fat, extending into the axilla. The microscope discloses cells with a large amount of cytoplasm and nuclei ranging from small ones of benign character to large, vesicular and atypical forms. Tremendous tumor giant cells may form. Preoperative irradiation should be given before attempting to eradicate the disease surgically, since these lesions are radio-sensitive. To our knowledge, however, all cases have proved fatal. Only two have been followed in the laboratory.

#### Infectious and Plasma-Cell Mastitis

Mastitis is becoming more rare, due to the attention given the breasts during and after pregnancy by the medical profession. Acute lactation mastitis due to cracked nipples, when nursing, can usually be prevented. With its occurrence, however, abscess formation is the rule and must be treated by radial incision.

Chronic mastitis may be of the tuberculous or non-tuberculous type. The tuberculous type is easily recognized because of its tendency to form a draining sinus. The breast affected should be removed and the patient should be given the best possible hygienic care.

Plasma-cell mastitis, or chronic residual lactation mastitis, is clinically the most important type of infectious mastitis from the standpoint of differential diagnosis. These cases tend to produce a firm, fixed lump in the breast, which may cause retraction in the skin and the nipple and closely simulate carcinoma. This type of mastitis can be traced back in every instance to a former lactation. There is persisting evidence either of lactation hypertrophy or infection during a former lactation. In such an area plasma-cell mastitis develops. The lesion in most instances has an acute phase which is transient and generally escapes clinical observation. At the time of examination only the chronic residual infection remains. The history of the former lactation may date back nine to fourteen years and the history of the acute infection may be unobtainable or may go back to the original lactation period.

On examination, the tumor is firm or hard; may attain fairly large size; may cause retraction of the nipple, adherence to the skin and enlargement of the axillary nodes; and may be dark on transillumination, giving all the positive clinical signs of cancer. Under the microscope, remains of lactation hypertrophy may or may not even be seen. The acini

of breast tissue, with their hyperplastic epithelium, are scattered or compressed by round-cell infiltration and fibrosis, making the section extremely difficult, in many instances, to distinguish from cancer. Among the round-cell infiltration, foreign-body giant cells or plasma cells may make their appearance. The

latter may sometimes be very numerous, hence the term plasma-cell mastitis.

The infection rarely subsides spontaneously and must be excised. The object in the operation should be to avoid doing the complete operation for cancer, if possible, by recognizing the truly benign nature of the condition.

Aided by Grant from the Anna Fuller Fund.

# Use Of The Russell Blade In Conjunction With Obstetric Forceps

(A Case Report)

By J. A. Dungan, M.D., Greeley, Colo.

THE first and only case of confinement in which I have made use of a combination of the Russell blade and the forceps—applied somewhat high—and, in fact, the only case, so far as I know, in which these instruments were ever applied simultaneously to effect delivery in a difficult labor, took place on the first day of June, 1982.

Since, by the use of these combined instruments, I did effect delivery in this labor, the child's head being considerably larger than the parturient canal—even after the latter had undergone all of the stretching usual in confinement cases—and at a moment when the only alternative left the patient seemed to be cesarean operation, it has occurred to me that this same procedure might serve in the case of many another patient beleagured by a combination of circumstances similar to those noted in this case.

The patient was a Mexican woman, aged 20, with a history of one previous confinement in which the baby was a girl, weighing 7 pounds and delivered with instruments.

The present labor proceeded normally, though I had noted that the pelvic outlet was rather small—too small, I thought, to permit the delivery of a large head. The presentation, as far as I could find out, was normal—L.O.A.—although there was a slight vertex trend. At its farthest advance, the head came under the proximal edge of the public bone, and remained about eight centimeters above the vulvar orifice. The employment of moderate doses of pituitrin failed to cause the head to advance and, after waiting an hour, I transferred the patient to the kitchen table, intending to try to do a forceps delivery.

I had with me at the time only the woman's husband, her mother and her mother-in-law. The former gave the ether, to full relaxation, and the two latter steadled the patient's flexed thighs, when the hips had been drawn to the edge of the table.

At this time I applied the forceps rather high, but, after intensive pulling efforts last-

ing a half-hour or more, I found myself absolutely unable to move the head. This would have been a sufficient indication for a cesarean operation, and I have done two, here, with these same indications. I believe, now, that I could have avoided at least one of them, had the presently-to-be-described procedure occurred to me at that time.

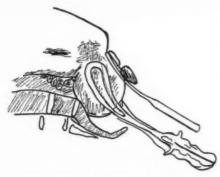
Realizing the futility of further intensive pulling, I recalled the fact that the articulations of the pelvis during confinements are generally more edematous and stretched than usual, and that they may even be forced further apart.

In the present instance, however, there was little if any tendency on the part of the patient's articulating surfaces in her pelvis to separate to the expected distance, as they were more closely held and the ligamentous connections were not swollen with fluid to the extent that would have been looked for by an accoucheur.

Therefore, if these surfaces were to be separated from their natural contiguity, great force was going to be necessary to accomplish this, and a peculiarly shaped instrument would be needed. I had with me in my obstetric bag such an instrument called the Russell blade, after its inventor, Doctor Russell, of Lamar, Colorado. The instrument in question was not intended for use in such a case as the present, nor for the uses to which I proposed to put it. Its particular field, as outlined in a published paper by the inventor, was for the purpose of turning the head of the unborn child into, possibly, a more satisfactory presentation.

A brief description of the Russell blade may be in place at this time, in case the reader should be unacquainted with it. It is a spoon-shaped instrument, a foot long and, at the widest part of the "spoon," about two inches wide and ¼ inch thick, with a shallow dip, a gentle pelvic curve and dull, rounded edges.

The patient being again anesthetized (although she was sleeping soundly from the



Sketch Illustrating the Maneuver Described, Russell Blade Applied under Pubis.

other she already received) and the forceps still being in place, I introduced the Russell blade between the vertico-occipital part of the child's head and the public bone of the mother. I next shifted the handle of the instrument to my left hand and proceeded to elevate it, thus pushing the head to the rear of the mother, or against her sacral curve.

This head, in its normal presentation, was still so large that it stayed partly up and behind the public bone, and yet was firmly against the sacral curve of the mother. Naturally, when I pried the head strongly backward, it was in the hope that either the symphysis public could be divulsed upward or anteriorly or that the sacro-iliac articulation could be separated, and thus there would be a certain spreading of the bones at the sides of the articulation. While I tried to push the head backward, in the manner described, I was pulling strongly in the line of least resistance, with the forceps, which I now held in my right hand.

For a minute or two, during which time I had allowed the woman to partially emerge from the ether, so that her recurring uterine contractions might be of assistance, I continued strong traction efforts, but apparently in vain, for there was, for the time being, no further advance of the head down the parturient canal.

After a brief rest, I began anew with the leverage efforts and the traction on the forceps, exerting all my strength. As a result, I

was delighted to notice that the head was beginning to move downward. This movement proceeded without interruption and eventually, seeing that the external parts were beginning to bulge, I removed the forceps and placed a pad of gauze at the posterior angle of the vulvar orifice, to make lifting pressure upon the bulging head as it emerged, and the child was born. There was no laceration of the uterus and only a small one, of about a half-centimeter, at the posterior angle of the perineum, which was sutured.

The postpartum toilet was completed and the woman would have been out of bed in the usual time after childbirth, except for a slight *phlegmasia alba dolens*, which necessitated her remaining in bed two weeks longer.

There were no puerpural or other infections and her recovery, with the exception already spoken of, was uneventful, which I thought was a remarkable thing in the circumstances.

If this case had been more a vertex presentation or a face-presentation than it was, I might have believed that the Russell blade had merely pried the occiput posteriorly and so into a better position for delivery than it was before. But the vertex, properly speaking, did not present at all, nor was it any factor, so far as I could see, in the retardation of delivery. The latter condition was entirely due to the size of the head, and not to its special presentation.

I must have, then, either divulsed the symphysis pubis forward—which I think highly improbable—or the sacrolliac juncture backward. This latter I assume is what happened.

Of one thing I am thoroughly convinced, and that is that, by the use of the Russell blade, in conjunction with the forceps, I saved this woman the perils and expense incident to a cesarean operation. I am further convinced that a great many thousands of these women, unfortunate enough to have conditions like those which attended the case here described, can, if the cases are properly selected, be saved the more expensive and dangerous operation, by the means and method here set forth.

1539 Tenth Ave.

### SUSPENDING THE CONSTITUTION

The Constitution of the United States is a law for rulers and people, equally in war and in peace, and covers with the shield of its protection all classes of men, at all times and under all circumstances. No doctrine, involving more pernicious consequences, was ever invented by the wit of man than that any of its provisions can be suspended during any of the great exigencies of government. Such a doctrine leads directly to anarchy or despotism. . . The theory of necessity on which it is based is false.—U. S. Supreme Court Ruling.

# Purpura Hemorrhagica Following Electric Injury

(Medico-legal Aspect)

By Robert Denison, M.D., Harrisburg, Pa.

N THE large literature on the subject of burns and electric injuries with their various sequelae, changes in the blood platelet count are rarely mentioned. In the early study of the pathology of burns, Welti and Locke1 were of the opinion that the blood platelets were markedly increased, whereas Salviol2 believed that they were diminished in proportion to the severity of the burn. In the more recent literature of the electro-pathology of burns and injuries due to electricity, no reference to the effect on the blood platelets can be found. Jaffe3 and Langworthy4, in their excellent reviews of electropathology, make no mention of the blood platelet count following electric injuries. Hittmair<sup>5</sup>, in a survey of the literature for the decade between 1917 and 1927, in dealing with the subject of purpura hemorrhagica, makes no reference to a relation between the thrombocytes and electric injury in the 1,000 articles reviewed.

The following case report, dealing with diminished blood platelets and symptoms of purpura hemorrhagica following electric injury, is apparently unique, as far as can be learned from a perusal of the literature and, therefore, seems worthy of reporting in detail.

### Report of Case

Mrs. M. L., white, female, aged 35, was referred by a compensation insurance director to determine if the patient's symptoms were related to her injury.

Her family history revealed no blood dyscrasia for the three immediate antecedent generations nor for her three children. The past history was irrelevant and devoid of any hemorrhagic tendency. Menstruation, prior to the accident, was normal.

Present Illness: While operating an electric carpet sweeper, on January 19, 1932, the patient came in contact with an iron steam pipe, which produced the passage of an electric current through her arms and body, thereby preventing her release from the sweeper. Her husband, attracted by a peculiar noise in her throat, broke the circuit. She instantly fell unconscious to the floor. Efforts at resuscitation succeeded, after afteen to twenty minutes, in restoring her to consciousness. Upon such restoration, the patient felt extremely nervous, cried considerably and twitched for a short period. Several hours later she was able, with assistance, to walk to a nearby physician, who examined her and advised her to go to bed. His examination disclosed no burns or other physical signs, except tachycardia and nervous jactitations of the hands and body.

For the ensuing week she was symptomfree, except for extreme irritability. She then noticed a large "bruised" area over the left arm and breast, for which she could assign no cause. Such purpuric areas have been the most marked and constant symptom since her injury. Practically no part of her body has

been spared. The following day, nose bleeds occurred and have been a most frequent source of external hemorrhage, occurring as often as four times a day for three consecutive weeks. The longest interval between them has been one week.

Shortly after the accident and almost con-

Shortly after the accident and almost constantly thereafter she complained of a generalized hyperesthesia, deep muscle soreness with lameness, fatigue, headache, palpitation of the heart, attacks of pain resembling angina pectoris and extreme nervous irritability. At various times there have occurred hematemesis, melena, menorrhagia and bleeding from the gums.

Physical Examination: The patient is a well developed, white female, weighing 158 pounds, with no apparent pain or deformity except scattered, variebly sized purpuric areas. There is generalized skin hyperesthesia with muscular soreness everywhere, proportionate to the amount of pressure. The head and neck are essentially negative. The chest shows no abnormalities. The heart is normal in size, shape and position; the tones, valves and rhythm are normal. The blood pressure is 120/80 in both arms. The lungs are clear, with no areas of dullness, abnormal breath or voice sounds, nor râles. The abdomen is flabby, but otherwise not remarkable. The spleen, liver and kidneys were not palpable. The spleen was not enlarged on percussion and careful auscultation failed to reveal any splenic friction rubs. Except for old and fresh purpuric spots, the extremities were normal. The deep tendon reflexes were greatly exaggerated but other neurological examinations were negative. The capillary resistance test was made many times, being positive on some occasions and negative on others. The trauma phenomenon was always positive.

Laboratory Data: Urine analyses have been consistently negative, except for occasional traces of albumen and varying numbers of red blood cells. The clot retraction time was made several times but was invariably within normal limits. On one occasion, it was delayed, with a small amount of expressed serum. The blood Wassermann reaction was negative. Numerous blood cell counts have been made and have ranged between the following limits:

Erythrocytes	4,000,000 to 4,990,000
Leukocytes	6,000 to 9,000
Hemoglobin (Sahli)	61 to 68%
Color Index	.66 to .72
Coagulation Time	2 to 4 minutes
Bleeding Time	
Blood Platelets	47,802 to 121,714
Polymorphs	72%
Eosinophiles	1%
Basophiles	0.5%
Large Mononuclear	
Lymphocytes	25 %

The blood-calcium was 11 mgm. per 100 cc. The red-cell fragility test was within normal limits.

### Comment

The prevalent theory of platelet formation from megalokaryocytes of the bone marrow (Wright) is generally accepted but has not been conclusively proved. There is also dispute as to the cause of the thrombocytopenia characteristic of purpura hemorrhagica. Those who maintain that increased platelet destruction, by the production of thrombocytolysin in the spleen (Kaznelson<sup>6</sup>), is the essential feature of the disease, have experimental support by the large number of cures established through splenectomy. On the other hand, Gerlach 7 and Minot 9 maintain that the purpura is due to decreased platelet formation, the result of suppression or injury of the giant cells of the bone marrow. This is supported by the experimental work on animals, in which aplasia in the bone marrow, following irradiation of the bones, leads to symptoms of purpura (Shouse, Warren & Whipple10). Also Shih11 showed, by the administration of thorotrast ( a substance containing thorium), that destruction of blood platelets in rabbits was followed by purpura.

In the case just reported, it might be reasonable to assume that the symptoms of purpura were brought about by the electric injury producing vascular changes in the bone marrow affecting the giant cells. The relationship of the symptoms to the injury is supported by the following facts: First, the purpuric symptoms followed the electric injury after a latent period of about one week, which is the usual latent period for vascular changes following electric injury; second, in the family history, including the offspring, no findings relating to blood dyscrasia could be brought out by careful questioning and the patient had apparently been entirely without symptoms prior to the time of injury; third, the known pathologic changes in the vascular system following electric injury makes it reasonable to assume that some such diffuse vascular injury, affecting the bone marrow, occurred in this case.

Although this case does not fulfill every symptom requisite in the textbook case of purpura hemorrhagica, as evidenced by the normal bleeding and clot-retraction time, yet enough other characteristic symptoms are present to classify this as a probable case of purpura hemorrhagica.

The established principle, that expectant treatment should be used in cases of electric injuries, is based upon the progressive changes due to the alteration of the blood vessels. Jellinek13 13 states that the walls of blood vessels, through which a current has passed, become brittle and friable. The endothelium is changed and parietal thrombi are attached

to the intima. Stöger14 states that blood vessels in apparently uninjured areas, remote from the pathway of the current, may participate and show severe hemorrhagic tendencies. with the development of intracanalicular thrombi. In the early days and weeks no reaction may be apparent. Despite extensive electric trauma no constitutional symptoms may appear. There is frequently a great healing tendency, despite the long latent period. In the present case, the pathway of the current (through the arms and trunk) and the changes beyond the pathway of the current would tend to support the idea that the vascular injuries were particularly diffuse and the bone marrow possibly involved.

The medico-legal aspects of injuries caused by electricity are usually a prominent feature of most cases. The present case involves compensation insurance and a law suit based on faulty insulation. It, therefore, becomes particularly important to establish the remote effects which may attend such electric injuries.

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#### CHARITY

Charity is not a franchise; it is only a favor . . . properly offered to the really helpless. . . . It may impose upon the benefactor something that he chooses to regard as a duty, but it certainly gives no vested right to the beneficiary .- H. L. MENCKEN, in American Mercury.

### What Is Good Obstetrics?

By M. O. Robertson, M.D., Bedford, Ind.

M UCH is being written and said about inferior obstetrics, and it makes one wonder, just what is good obstetrics? No doubt too much meddling has been done in obstetric work, and those who know how to apply forceps, or think they do, no doubt have to fight the tendency to "get it over with." Since the use of pituitary extract has become so common, there is, without doubt, too much use of that, used to whip up the uterus.

Of course, any injury to the birth canal predisposes to infection, and this manipulation and use of pituitary, certainly make for such injury. Therefore, those who feel that they are qualified may often do more harm than good. I heard one man, who does some surgery, say that his patients all did better when the baby was born before he arrived.

I may be wrong, but I feel that my patients do better when I am present. I see lacerations and puerpural fever, in patients who had been delivered before I arrived, and who had not been examined by me; but, had there been no examinations? I have an idea that there had-by the woman herself. I have some trouble with women of the laboring class, who try to put their hands to the vagina (even while I am there), to see if they can detect any progress. And to my amazemen, one woman (not a midwife) informed me that she had examined the patient before I arrived. I think this practice is far more common than physicians realize; in fact, I have never heard a physician refer to it at all, and I wonder if they are ignorant of the practice. It is surprising that there is not more puerpural infection than there is. If the prospective parents only knew a little more, and some of the doctors (figuratively) "knew" a little less, in my opinion we would have better obstetrics.

It takes much patience to practice obstetrics. Every minute of the second stage of labor seems, to the patient, like hours-and time doesn't fly with the attendant. I continually tell myself: "Time is a great resultgetter, and Nature is a wonderful doctor." I also continually impress on the patient that nature intended this process to be slow and that every pain helps. If there is any doubt in my mind of the probability of normal delivery, I never impart my doubts to the patient, but try to keep up her courage; and many times, even though I have doubts, a successful delivery takes place normally. If, after five or six hours of good, normal labor pains, there is no progress, I use forceps; provided, of course, that the head is engaged

and delivery by forceps is possible. Of course, no attempt to apply forceps is made unless the diagnosis of position is certainly made by feeling an ear or some other landmark.

If delivery takes place in the home, it is better if all present give up hope of normal delivery before I do anything radical. Of course, one can not be governed by what these untrained and sometimes uneducated neighbors think, as one will wonder why the Doctor doesn't do something early and others believe in letting nature have its course to the end. But if anything happens to the baby soon after it is delivered, I can not help fearing that the forceps were the cause, and therefore I hesitate to use forceps, if I think that the normal forces can accomplish the result.

#### Technic in Home Practice

I always use rubber gloves, which are boiled and wrapped in a clean (not sterile) towel, and everything for these cases is carried in a bag used for this purpose only. On arrival, I wash well in warm water, using soap freely; dry my hands and clean and dress my nails; again wash well in clean water; then prepare a solution of some antiseptic and soak my hand and also my glove in this and put the glove on wet. Feeling that it is impossible, in some homes, to have asepsis, I stick closely to antisepsis.

All examinations are vaginal; I do no rectals. The finger never enters the vagina without first going through the antiseptic solution. I feel that many times I can aid flexion, and thereby rotation, in this way. As the head comes over the perineum, I take the buttocks in my hands and pull them toward the median raphae, allowing more room and preventing laceration in many cases.

If one tries to do too much, one is liable to do too little, in some cases to one's regret. I have seen, unwrapped in a bag (apparently a general utility bag) with many other articles, a glove, taken and placed on an unwashed hand, applied to the antiseptic solution, and then a version done. Such things are certainly bad obstetrics.

### The Successful Accoucheur

In my opinion, good obstetrics requires an accoucheur with the following qualifications:

Good judgment, which decides, not only what to do, but when and how to do it. A patient may need a premature delivery: the when, and the how, are important. If there is some permanent reason for it, such as contracted pelvis, and no more pregnancies are

desired, one procedure is indicated; if it is some temporary reason and other pregnancies are anticipated, some other procedure might be advisable. A high-forceps delivery should never be performed, especially upon a patient without dilatation, who had been delivered successfully at a previous confinement.

Patience to wait for the natural forces of labor to exert their full effect; patience to give a chance for time to work its wonders, rather than hurrying into undue and ill-timed stimulation.

Skill to do the average, and not necessarily the major, operations; skill to know what should be done and insistence on its being done by a more skilled colleague, who may be deficient in judgment.

Good judgment is indispensable in the practice of medicine or any of its branches. The experienced eye sees much. The symptoms may seem grave, and yet the appearance of the patient reveals that all is right; or there may be no serious symptoms, and still there is the something that says loudly, to the experienced practitioner, "This is a very sick patient"—and time proves that opinion right. It is not following "hunches," but reading the facial expression, which can be learned only by experience.

Skill is great, but it is not enough. Unnecessary operations and undue haste are not good obstetrics, however skilfully performed.

# Old Age and the Prostate Gland

(A Case Report)

By Burr Ferguson, M. D., Birmingham, Ala.

THE ripened perspective of past experiences, coupled with pleasant memories of things that one has liked best, is about all there is in life for the old age period. Unfortunately these pleasant activities of the cells of memory are sadly inhibited by disorders of various glands, nerves or other elements in this wonderful body of the human animal. Oftentimes, in men, several maladies of the prostate gland are important factors in hastening the phenomena of old age and no doubt have often made their victim welcome most heartily the cessation of cardiac functions.

Clinical observations of ailments in the aged have also convinced me that this period of life is not only attended by an attrition and decay of all of the glands, organs and muscles, but that there is also a deficiency of one most essential chemical element—hydrochloric acid.

Recently I have had under observation an old man of 74 years, whose behavior gives, apparently, a vivid illustration of the foregoing conclusions.

This old gentleman retired from business some eight years ago. After a period of idleness he felt that something was wrong with his body that might be corrected, so that he might have a more comfortable time during his remaining years. After consultation with and treatment by a number of advisers and a continuance of the discomforts of the aged, he had a period of rest from all treatment. A rest from treatment, but otherwise no rest at all, because of a frequent and impelling desire for micturition during the night. To this controlling impulse there was added, by day, a constant dizziness, so the poor man was wholly unable to know the delights of old age.

After some time he consulted an internist,

who found that, in his youth, the patient had had a "sore" on the penis, which healed after a few days of treatment. Blood was taken for a Wassermann test and was found negative. However, it was concluded that a probable syphilitic basis formed the most logical reason for the present condition, so a year's course of neoarsphenamine and bismuth was begun. As the months passed without appreciable improvement, it was felt that the objective would be attained when a sufficient number of the injections had been given. The course was not completed altogether, because of the discouragement on the part of the patient-he had the injections for only ten months. After this clinical experience, the old man had a long rest from medical observation and treatment.

He came to me walking with a heavy cane, with evident effort. At the beginning of our talk he told me that he was utterly skeptical of pills, "shots" and potions and that he could give me no help with any optimism-a quality that was said to be necessary for successful therapeutic endeavor. I replied that his state of mind was of no interest to me: that after I had made my examination and found any evidences of infection or other disorder that I felt could be corrected, what he believed or disbelieved amounted to nothing, because the force with which I was working was uncontrollable by the mind and had been doing its beneficent work since Adam and Eve ate the apple and went out of the garden, into the region where the germs were made.

The examination showed, first, a leukocyte count of 14,900 per cubic millimeter; so I knew, before he stripped, that there were malificent bacteria somewhere about that

withered body. His muscles were stringy and, in spite of his weight of only 125 pounds, he had a pendulous abdomen; also cataract in both eyes, marked senile arc and an enlarged prostate gland, with retention of two ounces of alkaline urine, which was clear, but showed a trace of albumin and a few granular casts.

The prostate gland was massaged, with moderate pressure, when the enlargement was felt. Other therapeutic indications seemed clear enough. Whether the blood of old people has an alkalinity too great I do not know, save for clinical observations following the intravenous injection of hydrochloric acid. My experiences warrant the belief that this reaction is more or less constant. At any rate, old people have a sense of wellbeing and general stimulation after the injection of the acid, whether there are indications of infection or not, so I felt that the acid was indicated in any case.

Since the leukocyte count was well above normal, I felt that nature had put in a call for more white cells for some good purpose, and I knew that I could still further mobilize these cells and make them more active by the injection of hydrochloric acid.

In such conditions the effects are too direct and positive to be attributed to the trifling amount of the injected acid. But since one can see the effect of the acid in the hyper-leukocytosis that follows, is it not probable that this acid addition to the blood-stream stimulates, not only these cells that one can see, but also other cellular and glandular activities that have to do with the production of the body's mechanism of resistance?

Injections of hydrochloric acid (10 cc. of a 1:1,000 solution) were given every other day for fourteen days; his prostate was massaged twice; urine was drawn three times with a catheter. At the end of the first week, improvement in his appearance was noticeable. His skin was clearer, his eyes brighter, his urine was acid in reaction and the amount retained was decreased by half, and the urgency for micturition was not so great. There was also much less dizziness and longer and longer periods when he was not dizzy at all.

After the second week the dizziness had disappeared and, for financial reasons, visits were discontinued, against my advice and wish.

Within two weeks, dizziness reappeared and, after enduring it for a week, he again came to see me. He refused a massage of the prostate and the passage of a catheter, saying that it was too uncomfortable and, for a few days at any rate, he would go on with the acid injections alone. He was told that, in my opinion, the acid injections would be of no use without the accompanying conventional procedures (I am not altogether irregular). He replied that, since I was not 74, I did not know all of the virtues of the acid.

Such a plea found, of course, ready concurrence by me, so the acid was injected intravenously, 10 cc. of a 1:1,000 solution. To my utter amazement, within ten minutes after its injection he told me that he was no longer dizzy. I replied that there was no possible way for this clinical change to have occurred so quickly. "Well," he said, "it may be imagination, faith or Christian Science, but whatever it is it is well worth while." I saw the old man eight hours after the injection of the acid, and he still thought that he was not dizzy, so I was forced to take his opinion, and I now recommend hydrochloric acid for dizziness in such cases.

Since this time, three such five-day periods have come and gone. On the morning of the fifth day, when he awakes, he feels the dizziness. After the injection of the acid, on each occasion, he has reported to me its prompt disappearance. I am still of the opinion that massage and emptying of the bladder by the use of a catheter are indicated, but since the patient is pleased with the acid injections alone, I am content.

In the two months of observation, with the administration of 13 intravenous injections of the acid, there has been no discharge from the urethra nor other evidences of infection, so I am forced to think that whatever organisms may have been responsible for the enlargement of the prostate had already been eliminated before I ever saw him, by the same cellular force with which I have been working; for it must be granted that a leukocyte count of 14,900, in a man of 74 years, indicates some serious infection or pathosis somewhere in the body. In this particular case it must have been the prostate gland.

To this natural cellular reaction there appears to have been added some further activity induced by the injection of the acid, which is resulting, apparently, in an improvement in the gland, since he is only getting up once or twice during the night to empty his bladder, his nervousness is much less during the day and, save on the fifth day, he has had no dizziness. That this change is in no way to be attributed to his mental concept, is illustrated by a gain in weight from 125 to 137 pounds since the first injection of the acid on February 2, 1933. Thirteen injections of the hydrochloric acid have been accompanied by a gain of twelve pounds in weight-almost one pound per injection.

The leukocyte count on the morning of May 1, showed 12,500 to the cubic millimeter, which I take as an indicator that the improved condition of the prostate lessens the mobilization of the cellular forces. If the regular stimulation of these cells by the hydrochloric acid reduces materially the size of this gland, the leukocyte count should return almost to normal

# The New Prostatectomy\*

Truths About Transurethral Resection By Winfield Scott Pugh, M.D., New York City

S MUCH has recently appeared on the subject of transurethral prostatectomy that the physician naturally wants to know the facts in the case. It is the intent of this paper to make these clear.

Median-bar and prostatic hypertrophy, while showing similar symptoms, are vastly different in pathology. The former is essentially an atrophy and the latter an adenoma. These basic facts pertaining to the morbid anatomy must ever be borne in mind when considering any treatment of bladder-neck obstruction.

The median bar has a chronic inflammatory basis and responds well to resection.

The modern instruments of Collings, Stern and others, are based on the Bottini-Freudenberg principle, and very frequently one cut through the dam is sufficient to establish a cure. I am not describing the median-bar technic, as it has been fully covered in the literature. In my opinion it is a distinct advance in surgical therapy.

### Surgery of the Enlarged Prestate

Surgical attack on prostatic enlargement has now assumed a sound status and, in spite of many difficult problems, the mortality of radical prostatectomy is not high.

Several years ago an instrument, devised by Stern for transurethral resection or prostatectomy by electro-surgical technic, was revived at a prominent clinic. Its proponents painted a marvelous picture of their results. Here was the dawn of a new era for the prostatic patient. The conflagration spread and clinics throughout the land began to adopt this technic. Its various modifications all appeared strikingly simple. A patient came into the hospital with little or no preparation; sacral anesthesia was administered; the gland resected and, in a day or two, he was on his way home to an improved day and a night unbroken by the calls of nature.

Physicians have frequently heard of complaints following protatectomy and, with reason, now ask if these are eliminated by this new technic. The answer is an emphatic, no. Principles of prostatic surgery cannot be violated with impunity.

The youngest patient in our series of 125 cases was sixty years old; the eldest, eighty-five; the average age being about sixty-eight. All had experienced urinary symptoms over

long periods. Eight (8) revealed evidence of carcinoma and the same number had been subjected to previous resections. Without exception, those of our series were given the usual preoperative prostatic preparation.

#### Results

As this contribution is in the nature of a preliminary report, all non-essentials are emitted

In our group, I regret to say, there were 21 deaths-a mortality not exceeded by that of the ordinary prostatectomy. We have had several severe hemorrhages, of a degree greater than any so far reported, although there was but one death from that cause. The comments on bleeding cases have been quite interesting, many being unable to understand why I should have been so annoyed. One sleeps much easier after one has used a good pack or a bag in prostatectomy; of this there is no doubt. One should not place too much confidence in one's ability to coagulate the prostatic plexus, and should always be ready to perform a suprapubic cystotomy to check hemorrhage, if this opening has not already been made in the course of prepara-

Infection accounted for 15 of the fatalities in our list. Ascending sepsis, with acute suppurative pyelonephritis, either unilateral or bilateral, was invariably noted. In 2 cases there was marked suppurative perivesiculitis. An endeavor was made to drain these cases through the perineum; but definite pyemic symptoms soon appeared. In one case of ascending infection, bilateral decapsulation was done, and this may have hastened the demise, although there was little shock. While preparing this brief report, I saw one patient in the City Hospital, with a marked periprostatitis, accompanied by separation of the public bones.

Incontinence of urine seems to be a very annoying condition, and in our list there are 9 in whom it persisted from one to four months. We have been fortunate, I believe, as many seem to be permanently so disabled. I know of one who was relieved after a radical prostatectomy.

Anuria accounted for 4 deaths. As usual, they were in the younger members of our group, in whom we had every reason to expect a good recovery. In hospital experience, the best results are usually obtained with those cases where we regard success as a possibility far removed. Pneumonia was re-

<sup>\*</sup>From the Department of Urology, City Hospital.

sponsible for one death, and that in a cardiac patient, whom we had to give some relief from his prostatism.

Of those who did not figure in the mortality list, 29 have since been subjected to radical prostatectomy. To me, the results of the transurethral sections were unsatisfactory. If our modern concept of the enlarged prostate is adenoma, how can anyone expect the partial removal of a tumor to be helpful? Would one remove part of a uterine fibroid or do an incomplete section of a breast neoplasm? Not much! Then why are not the same principles applicable to the prostate?

### This Revision of the Bladder Neck

One of the chief advantages claimed for

the technic under discussion is the brief period of hospitalization. In these days of world sickness, it makes a big appeal; but is it quite fair? In the old days, when we did internal urethrotomy, I kept the patients in bed for a week; and there was but one incision. When we do a transurethral prostatectomy, new avenues, in which there is a possibility of infection, are opened up, just as they are after a uterine curettage. Most surgeons want their patients to have proper rest after uterine surgery, and certainly the prostate is the analogue of that organ. In my years of battle with the prostate, I have come to respect it and am certain that, after it is assaulted, the patient should have adequate rest.

30 East 40th St.

### THE CRUELTY OF IGNORANCE

One day last year a rural region in the South reported the presence of a wild man.

He appeared at a Negro cabin, making strange sounds and gestures, and refused to leave until threatened with a shotgun. Later he was seen sleeping in a pine wood, from which he fled when the aroused natives approached with weapons. Travelers saw him darting into brush thickets. Officers were called to catch and subdue him.

Of course you have guessed the explanation. He was a harmless Swiss, without knowledge of English, making his way from New York to Florida, where he had a brother. He had stopped at the Negro cabin to ask for a drink of water.

Ignorance made him seem a menace; being threatened, he tried to hide; hiding made him seem more dreadful to the frightened natives.

There is no other cruelty like the cruelty of ignorance.

It makes a robber or a madman of the harmless stranger; it persecutes the scientist who finds truth to replace error; it hangs hysterical girls and witless old women as witches; it ridicules and persecutes and somehow crucifies its saviors.

But all of that, you will say, is a thing of the past. Men are wiser now. They have learned compassion.

That is true in a measure. Men have made progress. But ignorance remains, and where there is ignorance, there is cruelty. Those who have no understanding have no mercy.

Look about you now and see a world of cruel contrasts. One half of the world, having more than it needs, uses its advantages to get more; the other half, handicapped by nature or law or custom, struggles in vain to get enough.

Can you imagine a system more cruel? It is ignorance that makes it. Man's inhumanity to man is caused by want of understanding.

-ROBERT QUILLEN.

# PHYSICAL THERAPY AND RADIOLOGY

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# Therapeutics: The Medical Protagonist\*

F there is one thing that a patient expects from the physician to whom he applies, it is a remedy for his disease. This seems to be a self-evident proposition.

The modern public is well aware of the wonderful advances made in diagnostic aids, and even demands the different investigations by x-rays, by the clinical laboratory, by special instruments and apparatus, etc.; but it submits to these with but one intentionthat the physician, having found out what is at fault, will administer a remedy to relieve or cure it.

This state of affairs is directly responsible for the generation of cults built upon fantastic theories, since the main emphasis of their argument is that they promise remedial measures, thus gaining the ear of every uncritical sufferer who most earnestly desires relief.

However skillful the physician may be in arriving at a diagnosis, if he has not a deep and wide knowledge of remedies from which to select the appropriate treatment, if he is at a loss as to what to do for his patient, he has betrayed the trust put in him.

learned by experiment upon trusting patients. Its broad and deep foundation and some of For a long time therapeutic nihilism has been

Too much time cannot be spent in the study of therapeutics, and it should not be left entirely to the postgraduate years, to be

the evergrowing superstructure should be taught in undergraduate years, under the skillful guidance of men learned in the science and art of remedial resourcefulness.

all too popular with the profession, and this is directly due, first, to an inadequate study of physiology, and second to the neglect of therapeutics.

Therapeutics is not the administration of chemical substances or surgical mechanics or psychic interpretations or a diet or a change of climate or exercise or baths. Therapeutics is not a school or an ism. Therapeutics is the science of the application of some form of energy, potential or kinetic, to the human body for the purpose of preventing, ameliorating, curing or modifying abnormal structure and function.

Therapeutics employs the potential energy of psychiatry, pharmacology and diet, and the kinetic energy of heat (and cold) and of motion. It lays tribute upon every form of apparatus, instrument or device which may be used to create these forms of energy in the body, and every form of energy which can be converted into them. Thus electricity is used variously to create mechanical, chemical and thermal energy in the body; radiant energy and its allotropic form, electromagnetic energy, is used to create chemical and thermal energy in the body; voluntary and involuntary motion is used to obtain chemical and mechanical effects.

All these lie within the scope of therapeutics. To use some and ignore others is, as Solis-Cohen and Githens point out, like trying to fight a giant with one hand tied behind the back. The advocacy of a school of restricted therapeutics is like insisting on using a baseball bat for every game wherein a ball is played.

<sup>\*</sup>Protagonist: The actor who played the chief part in a Greek drama.—Dictionary.

How often is a hemorrhage of the lungs, kidneys or uterus stopped by the application of cold water externally? Or when is electrolysis used for hemostasis? Who uses the hematopoietic effects of the high-potential charges? What physical agents are used in preference to drugs to allay pain? Does anyone ever relieve a toothache, for example, with the electrical brush discharge? How many know the various simple ways of applying heat and raising body temperature without diathermy or radiothermy or radiant energy? Who uses cold compresses or, for that matter diathermy, in pneumonia? Why is every wound, accidental or surgical, hidden from the beneficent rays of the sun (or of sun lamps) by dressings and bandages? It is because the therapeutic resourcefulness is cramped into the procrustean bed of cus-

tom. One sees the same futile methods of treating leg ulcers in the dispensaries, that were in vogue in the last century.

Let us set our house in order. Let us restore the teaching of therapeutics to the undergraduate curriculum. Let us demand a searching inquiry into each candidate's knowledge of remedies and remedial measures when he applies for a license to heal. Let therapeutics comprise the major portion of the knowledge requisite to practice any specialty. Let us improve our postgraduate facilities for learning how to heal the sick. Let us increase our resourcefulness in ways of easing disease and making the disabled able.

Therapeutics must be restored as the protagonist in the great drama where science fights death—the drama of scientific medicine.

FTW

# **Electrosurgical Removal of the Tonsils**

By A. L. Schneider, M.D., Brady, Nebr.

ELECTROCOAGULATION of the tonsils is a very much abused term. The operation should be called electrocryptectomy of the tonsils, because, in many cases, only the crypts are destroyed, while the base and the capsule remain. Of course, with persistence, we can perform a complete tonsillectomy.

During the past ten years, when the high-frequency current became popular, it has been demonstrated that, if a uni- or bipolar current is applied through a needle-pointed electrode, extensive tissue destruction can be produced, leaving a comparatively small scar. Since tonsiliectomy is the most commonly performed operation, and is no longer carried out exclusively by the laryngologists, this operation has become a very important part in the work of the general surgeon.

In many cases, surgical enucleation has proved to be incomplete—some writers say nearly 75 percent of them. Electrocoagulation is the ideal method for removing the tonsil remnants in such cases.

Considering all general symptoms, any tonsil which produces glandular infiltration or shows inflamed anterior pillars should be removed.

### Scope and Advantage of Electrocoagulation

1.—There seems to be an accepted theory that, in the sloughing process in a coagulated tonsil, a certain antibody is formed which, as a rule, at once counteracts inflammatory symptoms produced by inflamed tonsils.

2.—The operation can be carried out in a surgical "poor risk" with perfect safety.

3.—Since this is a bloodless operation, it is the first choice in hemophilias.

4.—It is useful to reduce tonsillar inflammation and general symptoms, as a presurgical preparation.

5.—It is ideal to remove postoperative tags. Some writers believe that, in chronically diseased tonsils, the crypts extend beyond the capsule, which makes their complete removal an extreme surgical risk.

Electrocoagulation is contraindicated in any patient where surgical enucleation is practical; in children; and in extremely nervous patients.

General Technic

Anesthetic, general: 2 capsules, 3 grains (0.2 Gm.) each of Sodium Amytal, or of Nembutal,  $1\frac{1}{2}$  grains (0.1 Gm.) each,  $\frac{1}{2}$  hour before operation.

Anesthetic, local: *Topical* application of either: (1) Cocaine flakes; (2) Cocaine solution, 10 percent; (3) Butyn solution, 4 percent; (4) I found the following combination most satisfactory and superior to any other I have used:

 Butyn
 0.50 Gm.

 Procaine
 0.25 Gm.

 Water
 6.00 cc.

 Phenol
 2.50 cc.

 Alcohol q. s. ad 30.00 cc.

Mx. and use, for topical application only, over the tonsils.

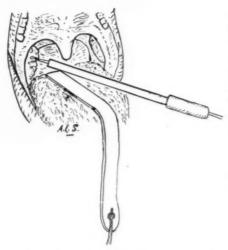


Fig. 1.—Use of Metal Tongue Depressor as the Indifferent Electrode.

Four or five applications of any of the above preparations should be made, a few minutes apart.

### Operative Technic (See Fig 1)

1.—Take a good, practical, all-metal tongue depressor; solder a connector on the end of the handle; and connect it to the cord from the *indifferent* terminal.

 Connect a Plank or similar electrode to the cord from the active terminal of the diathermy generator.

3.—Insert the point of the active electrode about ¼ inch into the tonsil; with a foot switch give a quick flash (a slight bleaching will appear); cover the entire tonsil thus; repeat this operation in about 10 days; 5 or more sittings are necessary for complete removal.

Dr. Doane designed a method, using the inactive electrode as a pillar retractor. There are also biterminal methods, the electrodes being designed to make both terminals active. This method appears very simple and foolproof as, in this technic, it appears practically impossible to lose control of the coagulative effect; however, experience has proved that, instead of coagulation, we sometimes have only a surface short-circuit between the terminals, hence this method is not always practical. The uni-active electrode method seems to be the most effective, hence it is the method of choice.

Strength of current: For this work, about 1500 milliamperes of current, by short circuit, is to be used, making about 250 Ma. with the patient in circuit.

After-treatment: As a rule no after-treatment is required, but anesthesin throat wafers are beneficial.

### Caution

1.—Always keep the coagulation point in sight.

2.—Since the diathermy current is a hightension current, it should never be used with general ether anesthesia.

3.—It is better to coagulate too little than too much. I believe that many poor results come from over-coagulation.

4.—Since this is a dehydration process, local infiltration anesthesia makes this operation more difficult.

### Conclusion

While I do not claim that electrocoagulation will replace tonsil surgery, it is a great addition to our present method, if only to be used to remove post-tonsillectomy tags.

This type of work covers a distinct place. Since the irregulars are making such exaggerated claims along this line, it is our duty to encourage the use of electrocoagulation in its right place and by physicians of regular standing.

# NOTES AND ABSTRACTS

### Ultraviolet Radiation Useful for Therapeutic Purposes

N J.A.M.A., July 9, 1932, W. W. Coblentz, Ph.D., D.Sc., of Washington, defines the Finsen unit as 10,000 ergs (10 kiloergs) per square centimeter of homogenous radiation of the wave length, 297 millimicrons—the erythemogenic unit or dosage of ultraviolet radiation.

As an illustration of the practical application of this Finsen unit, let us suppose, as an illustration of the practical experience, it is found that the average person can be given 20 Finsen units daily of Mazda S-2 irradiation without producing an overexposure, and that the particular Mazda S-2 lamp available for use emits a radiant flux of 100 microwatts per square centimeter (1,000 ergs per second) at the standard operating distance. Then, from the described correlations, it follows that 20 Finsen units  $(46,500\times20)=930,000$  ergs per square centimeter of Mazda S-2 lamp radiation, and hence that an exposure of  $(930,000\div1,000=)$  930 seconds, or 15½ minutes daily, is

required to produce a minimum perceptible erythema.

If it requires 100 exposures to effect a cure, this will amount to a total of 2,000 Finsen units of Mazda S-2 lamp radiation. This seems simpler than to report the total energy in ergs, which in this instance would amount to 93,000,000 ergs per square centimeter of Mazda S-2 lamp radiation.

Look for THE LEISURE HOUR among the advertising pages at the back.

### Manipulation of the Stiff Shoulder

OLD style regular practitioners are, according to Dr. J. D. Ellis, of Chicago, prejudiced by traditional teaching against manipulative measures in treating stiff joints. Rest without massage or manipulation still governs their therapy.

Manipulation, the author asserts in Ill. M.J., Aug. 1932, is definitely contraindicated in:

Tuberculosis of the shoulder joint.

Syphilitic and parasyphilitic articular or peri-articular lesions.

A tendency to myositis ossificans.

Gonorrheal affections.

Cervical neuritis and radiculitis.

The types of cases in which manipulation is indicated are:

The frankly post-traumatic.

"Periarticular" conditions where trauma plays a part of varying importance.

Post-rheumatic conditions.

Osteoarthritis.

Post-traumatic cases have, in the author's experience, yielded the most brilliant results to manipulation of any class of shoulder pathosis.

By manipulation of the shoulder joint, followed by maintenance of the joint in a position of rest and muscle balance, the following physiologic results are obtained: Relief of muscle spasm by the new position; increased circulation in periarticular structures; increased absorption of exudates, for bursae and the joint, by breaking up intra-articular and intra-bursal bands and pockets.

Preliminary preparation can be divided into remote and immediate. By the first is meant a thorough course of baking and massage. This leaves the examiner able to ascertain exactly which movements are persistently painful and restricted. Immediate preparation consists of the application of hot, moist dressings, with the shoulder in the greatest possible abduction the patient can endure for 4 to 6 hours.

The manipulations are not made by force but rather coaxed under gas, and at the first manipulation only one motion should be attempted. Physical treatment must follow the manipulative series for several weeks.

### Radium Therapy in Uterine Hemorrhages

N Am. J. Obstet. & Gynec., Aug., 1932, Dr. L. E. Phaneuf, of Boston, presents a clinical study of 105 consecutive cases of uterine hemorrhages of benign origin, treated by radium therapy. There was no mortality following this form of treatment in this series.

Fifteen (15) women having small fibromyomas, smaller than a two months' pregnancy, were treated. In 14 of these the tumors disappeared and permanent amenorrhea was established; in the fifteenth, although menstruation had completely stopped, hysterectomy was performed at a later date for pelvic pain.

In 7 cases of uterine hemorrhages of adolescence, where the smallest dose was 400 mg. hours and the largest dose 600 mg. hours, 4 were benefited with one dose, one was improved after a second dose, one needs another small dose, and the last had a hysterectomy performed by another surgeon, when menorrhagia returned after a 600 mg. hour dose.

In the group of uterine hemorrhages of middle life, comprising 72 patients, one woman who had a dose of 500 mg. hours was improved and her menstruation continued.

In 72 who had sterilizing doses, 70 had permanent amenorrhea and were considered cured. In one of these, hysterectomy was resorted to sometime after a 1725 mg. hour dose, for the return of the hemorrhages. Her physical condition had so improved during the period of amenorrhea produced by the radium, that the reaction from operation was slight and she made an uneventful recovery. I am sure the result would have been different had hysterectomy been attempted at the time she was subjected to radiation.

In addition to the radiation, 11 distinct types of operation were performed on 44 women in this group. The 11 women having hemorrhages after the menopause saw cessation of the bleeding and were permanently improved. No pregnancies occurred in any of the women after radiation.

Radium finds its greatest field of usefulness in women near or at the menopause, having severe hemorrhages from uteri showing no gross macroscopic lesions, as in hypertrophy and hyperplasia of the endometrium. It should be used cautiously, to avoid hysterectomy in the hemorrhages of adolescence, and only after medical, endocrinal and hemostatic treatment have falled.

I have read and contributed to CLINICAL MEDICINE AND SURGERY for nigh twenty years, and it goes without saying I could not be without it.—R.L.V., M.D., Ohio.

# **STOMATOLOGY**

# OFFICIAL ORGAN OF THE AMERICAN SOCIETY OF STOMATOLOGISTS

ASSOCIATE EDITOR
ALFRED J. ASGIS, ScB., M.A., D.D.S.

# Anesthetizing Children for Dental Operations

By Anthony S. Mecca, D.D.S., New York, N.Y.

Assistant Chief of Oral Surgery, New York University College of Dentistry; Associate Visiting Dental Surgeon, Bellevue Hospital.

THE use of local anesthesia, ethyl chloride and nitrous oxide-oxygen are the three accepted methods employed in anesthetizing children for dental operations. While a comprehensive foundation in the use and application of the anesthetic agents is essential, an understanding of the different types of children that present themselves for dental operation is highly important. In this connection there are a number of items that merit special emphasis. These items include certain considerations that the oral surgeon must seriously entertain and develop, and certain factors that he must constantly bear in mind, before attempting the treatment of children.

### Psychic Factors

Mental restraint accompanied by fear stands out as the greatest single challenge to the operator. Suggestion and persuasion may be used to overcome mental resistance. Medicine recognizes the fact that every imaginative feeling, such as fear, tends to transform itself into reality. Therefore, a countersuggestion will often remove that dread of illness which is often as deadly as the illness itself. The best interests of the patient need not necessarily be served through the administration of drugs alone.

Excellent results have been obtained by directing more attention to the application of psychotherapy in dentistry. Its effect cannot be overestimated. Bear in mind that it is referred confidence that prompts the parent to bring the little patient to the dental office for professional care and advice. It is up to the doctor to win the child's confidence and cooperation. The fear and apprehension that some children experience is plausible. The most obnoxious symptoms may make their

appearance during this period of excitement and unrest, and here is the point where the personality of the practitioner becomes superior to method. The doctor is the one to quiet and comfort the patient. He must instil confidence and assure the child that all will be well.

In the matter of approach, particularly with the more unruly patient, the problem of control may lie with the patient's relatives. Under these circumstances, the father and mother are informed that they need have no fear, for their trust has become the surgeon's trust. The parent should be reassured, time and again if necessary, of the safety of the entire procedure. Regardless of the anesthetic of choice, the parents should be apprized of the fact that, while waiting in the reception room, they may hear a noise during or after the operation and, should that be the case, they should not be alarmed, because some patients do manifest these symptoms, especially while under a general anesthetic.

Where the operator favors one form of anesthetic in preference to others, what is the criterion for his selection which the questionable patient presents? Shall a local anesthetic, ethyl chloride, or nitrous oxideoxygen be used? Is age a factor? Is the individual disciplinary reaction a factor?

The determining factor rests with the mannerisms of the child. While age is of some importance, it certainly is not a criterion. A child of six, coming from a home where discipline prevails, will cooperate with the doctor almost without exception. Such a child will invariably permit the injection of a local anesthetic without the least resistance.

While, on the other hand, a child of nine or ten, with improper training or no training at all—a child who distastefully responds "No! no!" to everything, offers no assistance whatsoever. Behavior in the latter case is referred to as negativism, making the use of local anesthesia impossible whenever this type manifests itself. In these cases, the doctor is bound to fail unless he resorts to the administration of ethyl chloride or nitrous oxide-oxygen.

### Nitrous Oxide-Oxygen

Should nitrous oxide-oxygen be the selected anesthetic, the anesthetist must be constantly on the alert to interpret the reactions of the patient. It should be stated that there is not a safer agent at our disposal which puts a patient to sleep, that works as rapidly and as effectively as nitrous oxide-oxygen. has no cumulative effect, but, because of its rapid reversability, it must be constantly administered to maintain uniform saturation. The rapidity with which surgical anesthesia makes its appearance is \_\_enomenal, taking usually from 15 to 40 seconds. The overlapping of the different planes of anesthesia and the fluctuations of the varied degrees of narcosis in many youngsters is marked. "Because the anesthesia range in many children is narrow, all children cannot be carried into a quiet anesthesia without bringing on signs of a lack of oxygen. One of the first signs of the lack of oxygen is bridging, in which the child supports the body on the head and heels and bows the back upward. Many anesthetists have been unduly alarmed by bridging. The anesthetist may immediately remove the cause by giving a breath or two of oxygen or air. The principal inconvenience from bridging is a tendency of the child to slide out of the chair."1

### Ethyl Chloride

The availability of ethyl chloride and its simplicity of application is responsible for its widespread use among the profession. However, its administration, strictly speaking, should be confined to the removal of deciduous teeth. To lessen the period of anxiety, the psychologic point to remember here is this: Keep the armamentarium out of sight. Before seating the young patient in the chair, everything should be in secluded readiness.

Without telegraphing notice to the child, the clothing should be loosened and a mouth-prop placed in position, for masseteric spasm<sup>2</sup> is likely to occur. No attempt should be made at restraining or pinning the child in the operating chair, until the moment just before actual resistance is offered. This delayed excitement will minimize fright and excitement and will give the surgeon the benefit of the patient's fullest cooperation. Oftimes, what may appear as an attempt at

struggle may pass off to a peaceful state of submission.

### Local Anesthesia

In local anesthesia, the question of patient control is paramount. This can be accomplished in a great measure by kindly, pleasant and reassuring conversation. It should be the endeavor of the operator at all times to minimize the psychic reactions of the patient, remembering that conciliation is more effective than coercion. He should inspire confidence by explaining little truths in a tactful manner.

With this form of anesthetic, probably the greatest difficulty will be encountered with block anesthesia, particularly in giving an inferior alveolar injection. The doctor must "keep in mind that the patient is apprehensive of the operation and is fearful of every move on the part of the operator." "It is well to hold the syringe like a pen. This enables the operator to counter any movement of the patient by easy withdrawal of the needle. It is also necessary to remember the anatomy. In the majority of cases, breakage of the needle occurs during an injection at the inferior alveolar nerve. The ball of the index finger should be in the retromolar triangle, with the nail resting upon the internal oblique ridge. The three fingers, usually dangling outside, should be stiffened and placed against the face. This will balance both operator and patient. Instead of there being a one-point contact, as it were, we have an additional three-finger contact. head is now under more definite control, especially in case of sudden jerks by an apprehensive patient."

### **Psychic Control**

The aim of psychotherapy in anesthesia through the aid of mental suggestion is the attainment of, first, the patient's confidence and, second, his cooperation, with the ultimate elimination of mental restraint. Since anesthesia is the topic of the moment, a simple concrete illustration is all that is necessary to effect a conclusion as to the relative importance of the patient's cooperation and the absence of mental restraint to a smooth narcosis. This example is particularly applicable to the anesthetization of children with nitrous oxide-oxygen.

Seat the little patient comfortably in the dental chair. Have him blow his nose, to be assured that no nasal obstruction exists. Before adapting the nose-piece or nasal inhaler of the gas machine in position, a drop of oil of orange<sup>5</sup> is placed on the inside of the nose-piece, to make certain to overcome the probable objectionable odor that a few children experience with nitrous oxide-oxygen. The induction of this mixture is begun by telling the patient to put himself to sleep by placing his own hand on the towel over his

mouth as firmly as possible. This very movement is the first indication of the child's willingness to assist the doctor. The patient naturally breathes through his nose and continues to breathe through his nose as he subconsciously follows the repeated orders, given in a clear, low tone, while holding his hand firmly over his mouth. The result is a pleasant narcosis, devoid of excitement, struggle and rigidity.

It is evident from the foregoing observations, that success in anesthetizing children does not rest wholly upon the professional man's knowledge of anesthesia. In addition, success necessarily must include a keen conception and psychological understanding of the different types of children that present themselves for dental operations.

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# DIAGNOSTIC AND THERAPEUTIC NOTES

### Vincent's Infection\*

THIS condition is also called "trench mouth,"
"ulcero-membranous" and "phagedenic
gingivitis." These terms allude to the clinical
or special manifestations of the process.

From a diagnostic standpoint, the following remarks should be considered:

The socalled Vincent's organisms (spironema and fusiform bacilli) are frequently found in mouths not the site of Vincent's disease.

2.—In most destructive and putrefactive processes these organisms are usually found in large numbers, together with many other organisms.

3.—Considerable doubt exists as to the exact etiologic role of these organisms.

4.—While cultural methods for diagnosis are impracticable on account of their difficulties, it has been suggested that the two organisms actually represent the same organism in different periods of its life cycle.

5.—In keeping with the above, it is of great value to bear in mind that, in the more acute cases, spironema predominate and are therefore of greater diagnostic value. The fusiform bacilli tend to predominate, to the exclusion of other organisms, in the more chronic and, incidentally, more frequently encountered cases.

6.—Last, and most important, a smear will show, not only the presence of an appreciable number of such organisms, but definite evidences of a destructive process, as manifested by necrotic tissue and pus.

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New York, N. Y.

### Agranulocytic Angina\*

CONSIDERABLE interest and attention have been devoted recently to the condition known as agranulocytic angina. This disease is associated with a marked leukopenia.

Striking manifestations of the disease are commonly seen in the throat, including ulcero-necrotic lesions of the tonsils, gums, fauces and nasopharynx. The main characteristic of the blood picture is a severe leukopenia, with an extraordinary disappearance of polymorphonuclear leukocytes (granulocytes) from the circulating blood. Most cases are fatal. Here it is likely that the lesions in the mouth are secondary to bone-marrow disease, which generally implies lack of resistance to infection.

Other cases (few in number) are relatively benign. Here it is probable that the oral lesions are primary, with some inhibitive or toxic action on the bone marrow.

Laboratory procedures: (1) Smears of oral lesions should be taken. The stained films often reveal a picture similar to Vincent's angina; (2) careful daily examinations of the blood are definitely indicated for detection of leukopenia and decrease in polymorphonuclears, with a relative or absolute increase in cells of the non-granular series.

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New York, N. Y.

I like CLINICAL MEDICINE AND SURGERY better than any other journal I receive.—A. E., M.D., Ill.

<sup>\*</sup>Dental Outlook, Vol XX, No. 4, April, 1933.

<sup>\*</sup>Dental Cosmos, March, 1933.

# A LIVING FOR THE DOCTOR

# The Resting Times of Life

REST is a most important element in the lifetime of an individual. When resting, the tired body cells are rejuvenated, the jaded mind is refreshed and the overstrained vital organs are relaxed and renewed in their respective functions.

Nature has ordained that night should follow day, necessitating a temporary relinquishment of the pressing duties of the period of activity. The average individual requires eight hours of relaxation, in order that his tissues may regain their normal state of good health. Hence the feeling of refreshment, enthusiasm and conscious euphoria that each healthy person experiences at the moment of awakening.

This means that one-third of the lifetime of an individual is consumed in a naturally enforced inaction, in order that he may be enabled to carry on his daily obligations normally. It seems a big price to pay for good health and the power of accomplishment, but so it has been ordained. One-third of the allotted seventy years passed in sleep or relaxation and the balance reserved for work or athletic recreation! Without these periodic periods of rest, disease, decay and death of the physical body would soon follow.

There is another sense in which the element of rest plays an important part in the lifetime of an individual or of a people. Experience has shown that, after a prolonged period of activity, mental or physical, along a given line of endeavor, a condition of exhaustion develops. This fact is well recognized by athletes, who, by a complete change of activity, avoid the staling that is so destructive to successful accomplishment. People in every line of business avoid this physical and mental tire by taking a vacation-a period of varying length, in which their routine labors are abandoned and the body and mind are given over to restful occupation in other lines.

be one of idleness. In fact, there is nothing so tiresome and wearing as complete idleness, and nothing which so quickly tends to physical and mental decay. A change of occupation, which will call into play other fresher cells of the mind or body, will best meet the exigency and afford time for the jaded cells to recreate themselves. The most productive men are those who lay aside one line of endeavor for a while and immediately enter upon another, quite distinct and far removed from their routine work. This explains the excessive and remarkable productiveness of many-sided men like Benjamin Franklin, who combined scientific labors, ordinary business (the trade of printing, in his case), statesmanship, patriotic and diplomatic activities, and literary production, in a life of unexcelled accomplishment.

Many men of our own profession meet a premature termination of life from arteriosclerosis and myocarditis or renal breakdown, by failing to learn the lesson of periodic rest from their professional demands. The value of the vacation period cannot be too strongly emphasized.

There is still another phase of this subject which is commonly entirely overlooked. There come times in the lives of all men when the bottom seems to fall out of everything, to use a homely expression. Business declines or stops altogether; the productive powers seem to be abated or are entirely arrested by extraneous circumstances, over which they have no control. A condition of general stagnation prevails. There are the crises in life, the turning-points in one's career, when one finds oneself up against a wall which completely arrests further progress.

Such a period the world is passing through at the present time-the greatest period of universal depression the world has ever known. Under such circumstances men are. perforce, compelled to stop in their work: em-It is not necessary that this resting stage ployment ceases; the money-making power no longer exists; and, whether they will or not, men must enter into a period of rest.

History is replete with the records of these enforced vacations in individual and national lives; but never before in recorded time has the compulsory inactivity been so general, so world-prevalent, so universally national and not merely individual, as now. Probably the nearest approach to such a world cataclysm as this were the "seven lean years" of Biblical record. It is worth noting, however, that in almost every instance, national as well as individual, the period of enforced rest has been succeeded by one of great activity and usefulness.

Specifically, it is probable that this truth has never been so strikingly exemplified as it was in the case of the great Lawgiver of Israel. His long life, covering the remarkable length of 120 years, was sharply divided into three periods of equal length. For forty years he luxuriated amid the wealth and splendor of the Egyptian court. Then followed a period of enforced rest—of exile in the land of Midian, where as a herder he tended the flocks of his father-in-law. During this period of galling inactivity he must often have felt that the bottom verily had dropped out of everything; this period of life was an absolute and deplorable failure. It was during this

long middle third of his life, however—his forty years of exile—that he was being hard-ened, built up and reinforced for the final forty years of most remarkable activity and personal and national productiveness.

The lesson can very aptly be applied by each one of us to this troubled time through which we are passing individually, in common with every other individual in the nation and the world. The acid test of bitter experience is upon us. Who can say what great renewal of personal and national activity is looming on the horizon-an era of prosperity which could be rendered possible only because of the trying, soul-wracking period of enforced inactivity that has depressed all men! The "great depression" may, in the fullness of time, become recognized as the great opportunity for recreation of individuals and nations, the period of preparation for a remarkable era of expansion and accomplishment.

Longfellow has sounded the clarion note of encouragement well suited for just such a time as this:

> "Let us then be up and doing With a heart for any fate. Still achieving, still pursuing, Learn to labor and to wait."

> > W. A. NEWMAN DORLAND.

# NOTES AND ABSTRACTS

### The Predicament of the General Physician

N the active front of the battle that Medicine is waging against death and disease, there are two definite classes of fighting men, the family physician and the specialist. Theoretically, their duties and responsibilities are definitely differentiated and established: The physician constitutes the active fighting line on the battle front, being the first to meet the enemy at all times and in all places; the specialist forms the support line, aiding and cooperating with the active fighting force in times of extra stress and strain—in times of doubt and disaster, when peril threatens.

There has been so much defection (not to call it by an even stronger but more appropriate name) from the front line to the support line, that what is left amounts to nothing but practically a scouting force. All that they seem able to do is to scout around

for the enemy and, when found, raise a halloo for support, which is promptly given by the second line which rushes forward, brushes aside the scout or scouts gathered around, engages the enemy in mortal combat, and proceeds to mop up, scientifically, financially and otherwise. The only thing left for the sadly depleted front line troops to do is some more scout work, with hopes of not having quite so much cooperation the next time.

Such is the predicament of the general physician in present-day medical practice. Deserted in this his hour of need by the majority of his one-time fellow-fighters on the active front, who have discovered the safety (economically and otherwise) of the support line; overwhelmed by the profusion of his aid and assistance in any and all parts of his work; surrounded at all times and in all places by their effusiveness, he piously breathes the heartfelt prayer, "God help me"; and the smug retort comes from the other

side, "God helps those that help themselves."

My advice is, why not take a hint from the specialists' own platform, and see if we cannot help ourselves? Medical specialism is not now, never has been and never will be a coordinate branch of medical practice. Such a thing as independent specialism is a flat contradiction in terms, and the only reason that the bulk of "specialists" are found where they are is that, in that way, they can undertake general practice and charge specialist's fees for the work. True medical specialism, professionally speaking, can be nothing else but consultative or referred work, and neither code nor rules of procedure can make anything else out of it.

The physician is in a serious predicament. Can he find his way out? Not without strong, intelligent, effective leadership; and it really seems that the specialist class has a virtual monopoly on that professional commodity. So why kick against the pricks? It is said that the happiest person, the most contented, in all the world, is an old maid who has ceased to struggle. As a physician, it would be possible to follow her example. But would it be best for the future wellbeing of our noble profession?

JAMES A. NORTON.

Conway, S.C.

[Ninety percent of the patients coming to the offices of general clinicians can be handled satisfactorily right there, if these clinicians are willing to spend the time, effort and small amount of money necessary to equip themselves with the knowledge and apparatus necessary for good, modern diagnosis and treatment, and if they are willing to accept the responsibility which goes with the unassisted management of a case of illness.

The specialists would never have been able to take work away from the practitioners, if the latter had not been too eager to pass the buck of responsibility to someone else, forgetting that the fellow who assumed the shifted burden was likely to receive the emol-

When the physicians of today become more like their professional forebears, they can assume the same strong and high place in the body politic that was held by the big practitioners of a generation or two ago—ED.]

### Physicians' Fees

SINCE no court of jurisdiction, during the past 25 years, has questioned the right of a physician to adjust his fee to the wealth of his patient, it appears reasonable to assume that the arguments to the contrary have had little, if any, perceptible influence upon modern judicial thought.—J. W. Hollowar, LL.B., in A. M. A. Bul., Mar., 1933.

# Medico-Legal Aspect of Plastic and Reconstructive Surgery\*

FROM my thirteen years of experience in medico-legal work, during three of which I have been general counsel for the Medical Society of the State of New York, I can state that the risk and hazard of a possible malpractice action attaches to every branch of medicine or surgery.

In my experience I have had occasion to deal with certain cases involving the specialty of plastic or reconstructive surgery. The cases which have come to my knowledge have included, among others, the following: A suit claiming malpractice in the performance of an operation for the elimination of redundant skin on the face and eyelids of a patient, including an attempt to remove certain scars from the patient's face, left from an earlier operation; a case arising out of the removal of old burn scars from the face of a young girl; a case of transplantation of cartilage to correct a deformity of the nose; a case of attempt to improve a condition of facial paralysis; and cases involving plastic surgery for the purpose of correcting conditions of pendulous breasts.

There are no special legal provisions governing the liability of a plastic surgeon in a malpractice action. It must be remembered, however, that the law requires a man who specializes in a particular field, such as the field of plastic surgery, to possess such knowledge and skill as is possessed by the average physician and surgeon specializing in his particular field.

The legal obligation of a physician to his patient may be briefly summarized as follows: The physician and surgeon is under the duty of possessing such reasonable learning and skill as is ordinarily possessed by physicians and surgeons in his locality, and it is his duty to use reasonable skill and diligence in his treatment of the patient; the doctor is under the further obligation to use his best judgment; he is not required to possess extraordinary learning and skill, which belongs to only a few men of rare endowments; he must keep abreast of the times and follow the approved methods in general use; he must give proper instructions to his patient. The law does not impose upon the doctor the duty of guaranteeing a good result, but he is required to use the skill and learning of the average physician and to exercise reasonable care and to exert his best judgment in the effort to bring about a good re-

The plastic surgeon, the same as every other physician, should guard against making

<sup>\*</sup>Author's abstract of a paper read before the Society of Plastic and Reconstructive Surgery, New York City, March. 30, 1933.

statements to his patients which might be interpreted by the patient as a guarantee of a specific result or contract to cure the condition treated. Perfection is not required of a doctor and he should not undertake to enter into any special arrangements whereby he warrants a specific result or a specific cure. The doctor should never undertake to operate upon a case when his better judgment dictates that he should leave enough alone.

In court, as well as out of court, specialists in the field of plastic and reconstructive surgery unfortunately are obliged to combat the situation that prevails as a result of the plastic work which is done by the quack and the fake beauty doctor. In my experience I have encountered cases where attempts were made, by plaintiffs suing plastic surgeons, to capitalize upon the prejudice against such quacks, to the detriment of the doctor. I am happy to report, however, that such blackmailing tactics have failed to achieve their purpose against the ethical and competent practitioners in this specialty.

LORENZ J. BROSNAN.

New York City.

#### How Is the Doctor to Get Patients\*

PROPOSE to examine the methods used by my financially successful contemporaries, which do not offend ethics or good taste.

Studying the more-than-successful doctor leads to two conclusions: he is a specialist and he maintains headquarters in a building or neighborhood frequented by successful doctors. Without these two essentials, the ambitious practitioner cannot hope to advance himself with maximum effectiveness.

Until his volume of work consumes all his available time, the average, self-made specialist, at his home preferably, carries on a general practice, or at least those aspects of it that he finds congenial. The doctor's patients today are either office or hospital cases; both his office and the hospital he patronizes must provide him with the tangible evidence of opulence.

The process of "whispering from the house

tops" has seen interesting changes in the past decade. Next to choosing a specialty and strategic location, nothing appears to contribute more to the success of the modern physician than astute methods of demonstration. J. J. MARKEY, M.D.

Seattle, Wash.

## Corporation Medical Practice

N THE Editorial columns of J.A.M.A., Oct. 15, 1932, comment is made concerning a corporation-"The Columbia Casualty Company"-controlled largely by business men, which proposes to vend medical and hospital service to the public of the Pacific coast under the form of insurance, the premiums running from \$3 to \$10 per month.

Among the most significant of the statements made by this company is that concerning the distribution of the dollar paid into the company for medical care. Of this, 45 cents is set aside for medical care, not including the cost of hospitalization. Twelve and one-half (121/2) cents represents the cost of hospital service, and 421/2 cents is used for promotion, organization, sales, administration and profits.

It is typical of all the schemes developed by business men for the vending of medical service that the amount of money used for promotion of the scheme and for profits to the promoters equals, if it does not surpass, the amount actually expended on medical care. Certainly it will hardly avail the public greatly in the lowering of the cost of medical care if a considerable portion of the dollar now expended for such service is diverted from the medical profession and from medical institutions into the pockets of promoters and business men. Any insurance scheme that proposes to lower the cost of medical care through enlisting a larger number of persons in the scheme and vending to these persons the services of a limited group of physicians should not do so either by exploiting the services of physicians who participate, in order to pay adequate financial returns to the business men involved, or by giving to the persons concerned medical care inferior to the average now available for the majority of people.

#### THE DOCTOR AND LIFE INSURANCE

For the doctor, insurance work is not like private practice. In the latter there is only the relationship of physician and patient. The patient comes and is anxious to know what his physical condition is. The insurance examination has many more elements in it. There is the Company, whose interest the physician is to protect; there is the local agency, eager above everything to pile up "insurance" written; then there is the solicitor who has brought in the case and who has only one anxiety-to get his prospect passed. In addition to these, there is the prospect himself, who has not come to help you find out his physical condition, but, in many cases, to conceal it.-Dr. J. INGLIS, of Denver, in Am. Med., Oct., 1931.

<sup>\*</sup>Med. Economics, June, 1933.

# THE SEMINAR

(NOTE: Our readers are cordially invited to submit fully worked up problems to the Seminar and to take part in the discussion of any or all problems submitted.

Discussions should reach this office not later than the 1st of the month following the appearance of the problem.

Address all communications intended for this department to The Seminar, care CLINICAL MEDICINE AND SURGERY, North Chicago, III.)

Problem No. 10 (Medical)

Presented by Dr. Dietrich Klemptner, Chicago (See CLIN. MED. & SURG., Oct., 1933, p.544)

RECAPITULATION: A white girl, 22 years old, complained of weakness, dizziness and shortness of breath. Her menstrual periods lasted 12 days and were profuse. Red spots on her arms and legs would come and go; and recently she had bled from the nose and gums. There was anorexia, nausea and vomiting. Her diet was mainly milk and potatoes, with a few bananas.

Examination showed pallor; petechial spots on both arms and legs; blood clots on the gums; systolic murmur to the left of the sternum, without cardiac enlargement; no enlargement of the spleen or lymphatic glands; capillary (tourniquet) test, negative.

Laboratory: Blood: Hemoglobin, 36 percent; red cells, 1,950,000; leukocytes, 5,450; differential count, normal; platelets, 160,000; coagulation time, 15 minutes; bleeding time, 5 minutes; Wassermann test and blood culture, negative. Urine was negative for albumin, sugar and blood.

Requirements: Give diagnosis (with reasons), treatment and prognosis.

#### Discussion by Dr. J. A. Dungan, Greeley, Colo.

THE case described somewhat resembles thrombocytopenic purpura, especially in the relative decrease of the blood platelets.

My diagnosis is incipient scurvy, and for these reasons: The girl has weakness on the slightest exertion; vomiting; her skin is sallow; she is breathless; has bleeding from her nose and gums and the gums are hemorrhagic; she also has petechial spots on her legs and elsewhere. She has limited her diet and, while she has been eating potatoes. we do not yet know whether they were the evaporated ones or not. In case they were, they would not contain the anti-scorbutic vitamin in sufficient quantity to prevent scurvy.

Treatment: Correct the diet to give an abundance of potassium-bearing and vitamin C-bearing foods, such as fresh vegetables and fruit. Raw milk or raw meat will suffice, if taken in sufficient quantities. But above all, give plenty of oranges and lemons.

#### Discussion by Dr. F. F. Schwartz, Fairport Harbor, Ohio

'HE clinical problem, according to the history, resolves itself into a picture of purpura, with thrombocytoplastic anemia plus avitaminosis.

Purpura occurs usually between the ages of 12 and 25, especially in females. There is a deficiency of blood platelets, prolongation in coagulation time, petechial hemorrhages, weakness, and bleedings from various organs.

With 160,000 platelets; color index, 92; hemoglobin (5 Gm. per 100 cc.-Sahli), 36 percent; and coagulation time 14 to 15 minutes, thrombocytoplastic anemia should be considered.

Treatment: Irradiated ergosterol (Viosterol), liver extract, abundant vitamin-containing fruits and vegetables, forcing fluid, ultraviolet irradiation, rest, fresh air and transfusion of whole blood with, later, an injection of an extract of blood platelets.

The prognosis is good.

#### Solution by Dr. Klemptner

N view of the dietary history and the blood findings characteristic of a secondary anemia, the diagnosis, avitaminosis (scurvy) seemed justified. When first seen, the patient was bleeding profusely from the gums, vomiting, retaining no food whatever, running a high temperature and pulse.

Within the first week she was twice transfused and was given an antiscorbutic diet. The course of her sickness during the next three months was stormy. The temperature varied 99° to 104° F.; the pulse from 120 to 170 (reaction to transfusion); the respiration from 12 to 30. Vomiting and pain in the chest, knees and hips caused a great deal of trouble. Edema of the ankles and back developed about 8 weeks after she was first seen. The urine at that time showed albumin, granular

casts and red blood cells varying from none to a great many.

The blood picture was watched closely. The hemoglobin varied from 4 to 5 grams (Sahil); the red cells from 1,250,000 to 3,500,000; the white cells from 13,400 to 6,200; platelets were 170,000 and 200,000 on two counts.

The heart became enlarged, the left border reaching ½ inch to the left of the mid-clavicular line. The liver was palpable 2 fingers' breadths below the costal arch.

It was about three months before the patient definitely improved. The edema cleared up, the urine became free of albumin, casts and blood and the blood findings were: Hemoglobin, 7.03 Gm.; red cells, 3,540,000.

Unfortunately, the improvement did not prove permanent. In a few weeks the patient began bleeding again, as before. At this time the blood showed a startling change: The bleeding time had gone up to 18 minutes and the number of platelets had decreased to 90,000. The red cells showed achromia and poikilocytosis. The poor response to the antiscorbutic regime ruled out the diagnosis of scurvy. The changes in the blood found in the last attack established the diagnosis as thrombocytopenic purpura. She died shortly after. There was no autopsy.

We know that, in many primary diseases of the blood-forming organs, no characteristic changes can be found in the circulating blood during life. It is of interest that, in this case, the pathognomonic changes in the blood were found only a short time before the end.

# Problem No. 12 (Surgical?)

#### Presented by Dr. Guy S. Van Alstyne, Chicago

RS F. H., age 26, consulted her physician because of a vaginal discharge; she had no other complaints. On examination, a rather profuse yellowish discharge was evident; there was no fever; no smears were made. The doctor prescribed a mild vaginal douche and advised her to report in a few days. He then sought the husband, who admitted a recent attack of acute gonorrhea, for which he had been receiving treatment.

Ten days later (the patient had not reported as instructed), the doctor received a call to visit this woman in her home. He found her ill in bed, complaining of moderate

pain over the lower abdomen. Her temperature was 100° F. and the lower abdomen was tender and somewhat resistant. A bi-manual examination revealed bilateral, tender masses in the pelvis. The physician, suspecting acute gonorrheal salpingitis, ordered the head of the bed raised and an ice bag applied over the pelvic abdomen, with supportive and symptomatic treatment.

The following day he found her much worse. Her temperature was 103.5° F.; the pulse was rapid; the entire abdomen was rounded, moderately tense and tender; and she had vomited. Suspecting a pelvic abscess, he sent her into Wesley Memorial Hospital, on my service, where I saw her immediately on arrival, at 12:00, noon.

The only further relevant history obtained was that she had felt feverish and had had some chills for two or three days prior to calling the doctor.

Examination revealed an acutely ill young woman. Her temperature was 101.2° F. and her pulse was 146. Her abdomen presented a rounded appearance, similar to that seen in late general peritonitis, or to the tympanites present in cases of pneumonia and typhoid. The abdomen was only moderately tender and not especially rigid, but was both more tender and more rigid over the lower part. Bi-manual examination revealed two large masses, one in each lateral fornix, which were tender to palpation and suggested tubo-ovarian abscesses. There was tenderness in the posterior cul-de-sac, but no bulging.

I made a tentative diagnosis of gonorrheal salpingitis with bi-lateral tubo-ovarian abscesses; ordered the bed elevated to Fowler's position, an ice bag to the pelvic abdomen; and laboratory work consisting of a complete blood count, urinalysis, vaginal smears and a Wassermann test, and left for my office. The laboratory, following their usual routine, deferred their work until the following morning.

At 7:00 P. M. the intern telephoned that the patient was bleeding profusely from the bowels. At 8:00 P. M., and before a transfusion could be arranged, the patient died.

Requirements: 1. With this history and these findings, what would be your diagnosis? 2. What further history, findings and laboratory tests would you desire before making a final diagnosis?

#### Destruction of Wealth

If outright destruction of wealth is an economic means of bringing back recovery, which of course it is not, then consistency would seem to demand that it be applied all around. The lumber industry, just as cotton growers, could for instance, build a bonfire out of its surplus stocks of lumber of 2.8 billion feet.—Kelly-Condon Co., Chicago.

# **CLINICAL NOTES and ABSTRACTS**

# The Treatment of Whooping Cough

W HOOPING cough is an ancient disease. Ballonius, a French physician, described it in 1578; later, Thomas Willis and Thomas Sydenham, English physicians, recorded this disease in 1658 and 1679. It was carried from Europe to America in 1732.

Whooping cough may occur at any age, but the greatest susceptibility is during the first half of the first decade of life. There are no definite statistical data on the morbidity of pertussis and the exact number of cases is not known.

The number of deaths directly due to whooping cough is estimated to be about 15,000 a year in the United States. The Canadian provinces lose approximately 1,000 children annually from whooping cough.

The organism causing whooping cough is thought to be the Bordet-Gengou bacillus. Other organisms, visible and invisible, are under suspicion as the real cause of the disease.

The chief anatomic pathology in pertussis is a catarrhal inflammation of the upper respiratory tract, with a destruction of the ciliated epithelium, in which the pertussis organism is found in large numbers. Complications are not uncommon. Bronchopneumonia, bronchitis, emphysema, atelectasis and tracheobronchial lymphadenitis are frequent complications. Vomiting is quite common, leading to malnutrition. The heart is occasionally enlarged, due to the severe strain of coughing. Injury to the brain by the toxemia of vascular congestion leads to convulsions or other cerebral disorders. Tuberculosis as a sequel to whooping cough is not uncommon.

In most cases, the diagnosis is very simple. In mild or atypical cases, the diagnosis is sometimes difficult. A history of exposure to pertussis, a persistent spasmodic cough which is worse at night, in an otherwise healthy child, is diagnostic of whooping cough.

#### Treatment

The treatment of whooping cough has undergone evolutionary changes. In the Middle Ages, and even in later times, it was treated with all kinds of absurd and irrational folk-remedies. At the present time, a large number of drugs are being used, with little or no benefit. Vaccines, ether and x-ray treatments have also been used, often with discouraging results.

About two years ago, I came across some literature by Dr. J. Epstein, of New York, in which the author highly recommended the use of gold tribromide in the treatment of whooping cough. As I had at that time a number of pertussis cases under my care, I decided to give gold tribromide a careful clinical trial. The results were most satisfactory. The doses recommended by Epstein were from 1/20 to 1/10 grain (2 to 6 mgm.), depending on the age of the child and the severity of the illness. This was given in an aqueous solution, a teaspoonful three or four times a day, and once at midnight when necessary.

After using gold tribromide for some time, I found that it did not keep well on standing for any length of time, when in solution in plain or distilled water. There was always some slight chemical reaction with a sedimentation. To avoid using an unreliable solution of this drug, I am now prescribing a stable, standard, palatable preparation, known as Elixir Gold Tribromide (Elixir Bromaurate)\*. The dose is a teaspoonful three or four times a day, after meals.

I have used the Elixir Gold Tribromide in 20 cases of whooping cough which came under my care. The results were most encouraging. After two or three days of treatment, the attacks were shorter and milder and the children slept better. In two or three weeks, the cough gradually ceased, without serious complications or sequelae.

LEE PAZOW, M.D.

New York City.

# Treatment of Syphilis with Bismutht

A S a result of our experimentation with bismuth treatment on a large scale in syphilis of all stages, we conclude that its use involves no danger and that the rapid and stable results assure it a foremost place in the antisyphilitic armamentarium.

In primary syphilis with negative serum findings, the action upon the chancre is rapid. The spirochetes disappear from the surface after the second injection. In primary syphilis

<sup>\*</sup>Elixir Gold Tribromide (Elixir Bromaurate) may be obtained from Schieffelin & Co., New York City.

<sup>+</sup>J. Chemotherapy, July-Oct., 1932.

with positive serologic tests, all patients, after the end of the first course of treatment, had a negative Wassermann reaction, with sometimes a slightly positive Hecht reaction. They remained entirely negative afer the second course of treatment.

The secondary manifestations are rapidly influenced by bismuth, particularly mucous lesions, which dry with three to four injections. Such patients have obtained negative serum tests with one course in 85 percent, and with two courses in 92 percent of the cases.

We have finally decided that the oil-soluble bismuth preparations (liposoluble bismuths) give the best results. A course consists of 5 injections in the buttocks, of from 60 to 80 mgm. of metallic bismuth, with an interval of one month between courses. Attack should comprise 3 courses but, if the serologic reactions become negative after the first course, the second may be limited to 12 injections and the third to 10.

Bismuth is a strong weapon against spirochetal infection; it should not be relayed to the second place as a reserve, for use only in patients intolerant or resistant to arsenic. It can hold its own against the latter because of the constancy, rapidity and stability of the results it produces.

Dr. L. HUDELO AND R. RABUT.

Paris, France.

#### Treatment of Chorea Minor\*

N recent years numerous favorable reports have appeared in the literature indicating that Nirvanol or phenyl-ethyl-hydantoin therapy produces the best results in chorea. I have come to the same conclusion (particularly in severe cases of chorea minor) following a study of these reports, the observation of cases treated at the East London Hospital and the treatment of cases in private practice.

Nirvanol (a barbituric acid derivative) is one of the few drugs which, when given regularly for about seven to fourteen days, will produce a syndrome of rash, fever and increased pulse rate. To produce this "Nirvanol sickness," the drug is given orally in tablet form in a dosage of 0.3 Gm. per day to a child of three to fourteen years, until the reaction occurs. The drug should then be stopped. The rash is usually morbilliform in character, the temperature usually rises to 102 to 104 F., and both usually subside in three or four days. In some cases there will be only a rash or only fever, or only a pulse rise, or only an increased eosinophilia. The first three evidences of reaction will occur together in about three-fourths of all cases. In three of my cases it was necessary to

continue treatment for 15, 17 and 22 days before "Nirvanol sickness" appeared. Following the disappearance of the sickness, improvement in the chorea occurs, usually within the first week or ten days. Most of the patients improving lose their coarse, purposeless body movements first, but may retain the fine tremor of the hands for several weeks.

Nirvanol seems to act cumulatively, but it does not seem to depress the circulation or respiratory system or have any irritating effect on the kidneys or to aggravate any existing heart lesion. With discontinuance of the drug when fever, rash, etc. occurs (or at the end of 14 days), there is no likelihood of an unfavorable reaction occurring. Of the untoward reactions reported, Pilcher and Gustenberger have noted pulmonary disturbances, but no fatalities; while Gobel feels that Nirvanol may lead to bone marrow injury, producing a clinical picture similar to agranulocytosis.

Six observers report 163 cases, with cure or improvement in most of them and only a transitory hemorrhagic cystitis as a complication occurring in one. Cure or marked improvement, when evident, occurs in from four to six weeks following stoppage of treatment. Reports show Nirvanol to be effective in many cases when all other measures have falled. The disease recurs in a minority of cases, usually in from six months to  $2\frac{1}{2}$  years, but in no greater percentage by this method than following other forms of therapy.

Sutton, who has reported the use of typhoid (TAB) vaccine intravenously in 24 cases, with excellent results, suggests that the main benefit of Nirvanol is its production of fever, as is the case with the vaccine. I do not feel that this is the essential action of Nirvanol. Further studies are necessary to determine whether or not it is a specific antirheumatic.

WILLIAM WHITAKER, M.D.

Quincy, Illinois.

### Treatment of Hallux Valgus and Hallux Rigidus\*

THE commonest surgical procedure in the treatment of hallux valgus and hallux rigidus is excision of the head of the metatarsal bone. This leads to much shortening of the great toe, often followed by pain in the regions of the sesamoid and other metatarsal bones.

A new operative procedure which is intended to obviate these disadvantages is as follows:

An incision is made along the medial side of

<sup>\*</sup>Illinois M.J., February, 1933.

<sup>\*</sup>Austral. & New Zeal. J. Surg., June, 1931.

the metatarso-phalangeal joint of the great toe, extending from about 3 cm. in front of the joint to about 6 cm. behind it. The skin flaps are dissected up and retracted. An incision is then made through the anterior part of the capsule of the joint, as far forward as possible. From each extremity of this incision the knife is carried backward and a flap marked out which is then dissected posteriorly as far as the neck of the metatarsal bone. The metatarso-phalangeal joint is thus opened. An osteotome is then used to cut off about 1 cm. of bone from the anterior end of the head of the metatarsal bone. This section only partially removes the articular surface of the head and must be made in any case distal to the sesamoid bone. The head is then shaped, with bone-cutting scissors and file, to present a conical anterior extremity. The flaps are then stitched round this conical end with fine catgut. An important detail in the procedure is to apply toe-nail extension to the great toe.

N. D. ROYLE, M.D.

#### Prevention of Prostatism\*

THE debilitating consequences of the progressively enlarging prostate in obstructing the passage of the urine into the urethra, may be obviated by the use of the endoscopic and electro-cutting instruments which I have described.

Precise and comprehensive visualization of the urethra, encumbered by the intruding, enlarging prostate, is obtainable only by the pan-endoscope evolved by me 10 years ago. This has now been supplemented by a cutting instrument, the whole forming a visualized prostatic electrotome which, when charged with the radio type of current, cuts through the densest of prostatic tissue as though it were butter. With this instrument one can revise at will the prostatic-encumbered urethra and restore it to its normal or to an exaggeration of its normal tubular character. Incidental bleeding and coagulation are controllable by technical management of the strength of current used.

Postoperative results in 30 or more patients, indiscriminately selected, as recently exhibited before the American Urological Association, have demonstrated that there has been no endoscopic or symptomatic evidence of recurrence of the urinary symptoms of prostatism in these subjects.

It is my practice first to ream out the middle zone on the floor of the urethra, completing the task of cutting and coagulating this area before proceeding to the left lateral zone; when this has been satisfactorily completed the right lateral region is treated.

\*J.A.M.A., Dec. 3, 1932.

Results justify the opinion that in 90 percent of cases in which prostatic obstruction is already established, whether it is fibrosis, benign hypertrophy or a malignant process, prostatectomy is destined to become obsolete. Recognition of the early manifestations of prostatic disease by the physician and the use of proper endoscopic and instrumental methods will obviate the operation and consequences of removal of the prostate.

Jos. F. McCarthy, M.D.

New York City.

# Present Status of the Ketogenic Diet\*

THE ketogenic diet treatment of epilepsy was introduced by Dr. R. M. Wilder, in 1921.

As reported by different observers, convulsions disappear completely in about one-third of all children treated. The proportion of arrests in adults is smaller. Baborka reported definite improvement in 56 percent of 100 patients, varying from 16 to 51 years of age. My experience with 75 cases corroborates his report. The arrest of convulsions lasts long after the ketosis is abandoned. The diet is particularly successful with peter mal, which can be cured, as well as other early cases of epilepsy. Grand mal, when well established, can be arrested, but not cured. The best results are obtained in children and young adults who are just beginning to have seizures.

One can not rely on the ketogenic diet alone in handling all cases of the epileptic complex. Quite often ketosis must be supplemented by low-sodium chloride, high calcium intake, and limitation of fluids. In several cases, in which the ketogenic diet alone was giving only improvement. I have combined it with the sodium chloride, calcium and fluid factors, with complete stoppage of convulsions. Either the ketosis, sodium-calcium change or dehydration method will arrest certain patients, while many others will need a combination of two or three of these systems of treatment. From one to three grains of phenobarbital may be practicable in the early stages of treatment, although it is not always necessary.

The chief causes of failure, in the 35 to 45 percent of cases not cured or benefited, are: brain tumor; mental deterioration due to chronicity and old age; psychopathic states; and mechanical factors regarding food calculations and variations. There is no danger of pellagra, amenorrhea or negative nitrogen and calcium balance from the diet, if it is supplemented with brewers' yeast, viosterol and calcium lactate.

<sup>\*</sup>Ann. Int. Med., Dec., 1932.

The diet is a useful adjunct in the treatment of infections of the urinary tract and as a prophylactic against colds, other common acute respiratory infections, and the infectious diseases of childhood, owing to its high (fat) content of vitamin A. In migraine, relief is obtained in about the same proportion of cases as in epilepsy in adults. It has benefited a few cases of asthma. It is, by no means, a universal "cure" for epilepsy or any other disorder, but it offers a means of definitely arresting the epileptic symptom complex in many cases.

D. SCHUYLER PULFORD, M.D. Sacramento, Calif.

## McDonagh Blood Studies in Asthma

HAVE been using McDonagh's method of study on the proteins of the blood serum for the past three years, especially in connection with asthmatics. While I find no specific characteristics in regard to asthma itself, we do find evidence of toxicoses, characterized by a tendency to decreased or absent motility of the protein particles, precipitation of the particles into clumps and the presence of large giant bodies. The more toxic the patient appears, the more pronounced are these findings.

A very interesting finding in this connection is that these asthmatics also present a decreased sugar tolerance curve and, as a rule, hypoglycemia. But with the proper administration of lactose or dextrose with small doses of insulin, this sugar curve returns toward normal, and disappearance of these precipitated clumps and an increase in motility, with corresponding clinical improvement, result.

KENNETH PHILLIPS, M.D.

Miami, Fla.

#### Sinus Infection\*

T would be well for the general practitioner to have a roentgenogram of the sinuses whenever, following a severe cold, grippe or any acute illness, a patient cor plains of stuffiness or stopping up of the nose or of postnasal discharge, frequently intermittent in character. Also in recurrent attacks of grippe, unexplained fever, mental depression and loss of power of concentration following an illness, arthritis, unexplained removal of tonsils, persistent gastro-intestinal symptoms, prolonged bronchitis, tracheitis or recurrent pneumonia, so-called migraine, neuralgia, facial orbital or cervical. In any of the above mentioned cases, an infection in a sinus may be present frequently without one nasal symptom.

\*M. J & Record. Oct. 19, 1932.

It may be surprising to know how often an attack of acute sinusitis is mistaken for grippe.

With regard to the pain and tenderness usually associated with chronic sinusitis, it is safe to say that seventy-five percent of these cases do not have either of these symptoms. If pain should be present, it is intermittent and occurs at about the same time each day. Each sinus has its characteristic pain.

WESLEY BOWERS, M.D.

New York City.

# Kidney Lesions as a Cause of Gastro-Intestinal Symptoms\*

G ASTRO-INTESTINAL symptoms are frequently encountered in diseases of the urinary organs, particularly the kidneys. In one of 3 cases which I have seen, the pressure of a large hydronephrotic mass on the second portion of the duodenum caused gastro-intestinal disturbances. In the other 2 cases, however, the kidney mass was not sufficiently large to cause any pressure on the bowel and gastro-intestinal roentgen-ray studies had shown no obstruction. There were no changes in the gastro-intestinal tract to account for the digestive disturbances observed, the only demonstrable lesions being those of the right kidney. Correction of the renal pathosis resulted in the complete disappearance of the gastro-intestinal symptoms.

The sympathetic nervous system is being taken into account more generally as an explanation of pathologic visceral phenomena and it seems reasonable to suppose that in the last two cases reflex impulses between the diseased kidney and the stomach or bowel provide an explanation of the symptoms.

F. H. COLBY, M.D.

Boston, Mass.

# Alkalosis and Peptic Ulcert

SINCE the introduction of the Sippy method of treating peptic ulcers, the danger of a resulting alkalosis from it has been stressed by many. Two (2) of our patients, who were treated according to the Sippy method, developed severe symptoms of alkalosis and showed definite biochemical changes.

In contrast, we have administered excessive doses of alkalis to 61 patients with peptic ulcers, by a method in which initial small doses were followed by progressively larger doses, until complete cessation of the symptoms ensued. The carbon dioxide combining power of the blood plasma and the blood

<sup>\*</sup>J. Urol., Oct., 1932.

<sup>†</sup>J.A.M.A., Nov. 5, 1932.

chlorides did not reveal any evidence of alkalosis in any of these cases.

In order to minimize the danger of alkalosis resulting from excessive alkaline therapy, more attention should be directed to the method of administration, as well as to the type of patient to receive this form of therapy, great caution being necessary with patients with renal disease, pyloric obstruction or gastric hypotonia.

Dr. H. A. RAFISKY AND ASSOCIATES. New York City.

# Anesthesia for Tonsillectomy\*

THE average adult should have at least 3 gr. (approx. 0.2 Gm.) of phenobarbital 1½ hours before the tonsillectomy operation, supplemented by ¼ gr. (16 mgm.) of morphine sulphate and 1/100 gr. (0.65 mgm.) of atropine sulphate 30 minutes before operation. I use also two half-ounce doses of Ceanothyn, one hour and one-half hour, respectively, before beginning, to lessen the bleeding. Fivetenths (0.5) percent Butyn, with 7 drops of epinephrin to each 15 cc. of solution, is a very satisfactory local anesthetic. No serious toxic effect has ever been seen from an amount sufficient to produce good anesthesia.

The most important point of injection is under or through the anterior pillar, around to the posterior, lateral side of the tonsil just above its middle—the socalled hilus of the tonsil. The region where the plica triangularis blends into the tongue is also usually injected.

One advantage of Butyn is its rapid action; anesthesia of the first tonsil is complete about as soon as the second one is injected.

If secondary hemorrhage occurs, Butyn and epinephrin should be injected in the neighborhood of the bleeding vessel.

A. H. NORTON, M.D.

Eugene. Ore.

### An Easy Method of Removing Plaster Casts†

THIS method consists in creating, at the time of application, free channels between the gauze or wadding and the plaster, enabling one to saw through the plaster with a gigli saw, along a predetermined line.

Waterproof paper tubules (soda straws or similar casings) are threaded on a stout cord or a flexible wire of considerable tensile strength and applied over the gauze or wadding surrounding the part to be covered by the cast. At intervals no greater than 12 inches, the tubules with the encased cord or

wire are looped outward for a slightly greater length than the proposed thickness of the plaster cast. These loops are passed through perforated gummed paper strips, which, attached to the gauze, maintain their position.

The line of cleavage of the cast is determined at this time and may be a straight line or may be laid to meet the exigencies of the individual case.

After the tubules are placed as desired, plaster-of-paris bandages are applied in the usual manner and wrappings are made to surround the extended loops, so that when the cast is finished, the loops will extend a short distance beyond the surface of the cast.

To remove the cast or to split it for temporary removal, the gigli saw is attached by means of the eye in the end of it to the stout cord or flexible wire and by that means is drawn through the first segment to be severed. Each succeeding segment of the case is cut in the same manner.

This suggestion works well in my hands and in the hands of a few confrères who have tried it, and it is both inexpensive and a time saver.

RALPH J. MALOTT, M.D.

Scottsbluff, Neb.

CLINICAL MEDICINE AND SURGERY to me is the most interesting and instructive reading and I certainly watch the mails for it.—A. L., M.D., New York.

#### Blindness from Methyl Alcohol Successfully Treated by Lumbar Puncture\*

ON THE BASIS of a case of alcohol blindness successfully treated by us, we recommend the following mode of treatment of this condition:

 Repeated gastric lavage during the first four or five days, to remove the alcohol excreted by the gastric glands.

2.—A large fluid intake, to dilute the poisons circulating in the blood stream.

3.—Pilocarpine sweats and hot packs daily, to aid elimination through the skin.

4.—And, most important, the withdrawal of as large an amount of cerebrospinal fluid as possible, daily for from 4 to 5 days (the pressure should not be allowed to fall below 100 mm. of water), to dilute and mitigate the attack of the poisons on the central nervous system, especially the eye.

This treatment, of course, is to be used whether the eyesight is damaged or not.

DRS. G. M. MATTHEWSON AND B. ALEXANDER. Montreal, Can.

<sup>\*</sup>Northwest Med., Oct., 1932

tJ.A.M.A., Mar. 25, 1933.

<sup>\*</sup>Canad. M.A.J., June, 1932.

## Treatment of Alimentary Obesity\*

ALIMENTARY obesity should be treated by diet and hygiene, and not by drugs or thyroid extract.

Reduction should be slow, averaging not more than two pounds per week. The reduction should not be pushed to the extreme limit; it is well to stop at a point about twenty pounds above the average figure for age and height.

Regarding exercise, for the average case without notable failure of the heart, a good general rule is for the patient to take the exercise required by the ordinary activities of life. For young individuals walking may be advisable.

Regulation of the diet is the essential treatment. Generally it is found convenient and proper to begin in an arbitrary manner with a considerable reduction of the fuel ration; but very rarely should this reduction be made more than one-half.

If there are no special indications from complicating disease, the diet should be as near the normal health diet as is consistent with the necessary reduction in caloric value, with, however, special features. These include a liberal and even excessive ration of protein; a liberal quantity of vitamins; a good amount of roughage; and palatability. The use of table salt should be reduced to the minimum amount consistent with health.

EDWARD E. CORNWALL, M.D. Brooklyn, N. Y.

# Operative Treatment of Cornst

P AINFUL corns are pathologically similar to bunions and can be effectively cured by operative means. The operation includes regional anesthesia, administered at the base of the toe; removal of the entire keratinized superficial structure of the corn; and dissection and removal of the bursa and tiny exostosis underlying the site of the corn, which generally overlies the interphalangeal joint above the extensor tendons. The bursa and exostosis are always present and must be

In the series of corns on which I have operated, the results have been extremely satisfactory and no recurrences have been noted to date.

W. I. GALLAND, M.D.

New York City.

\*Med. Times and Long Island M. J., Feb., 1933.

tJ.A.M.A., Mar. 25, 1933.

#### Meeting Temperature Changes\*

Our best health, efficiency and resistance to disease demand that we retain and enlarge our natural capacity to meet air changes. It is a calamity to miss the benefit and exhilaration so lavishly offered by frequent weather changes.

As a people, we remain tied to the principle of protection against temperature changes. We have fur coats, rain coats, clothes of different weight, mufflers, etc. Our houses and offices must be kept at an unvarying temperature level. We seem determined to be temperature conscious. Thus our capacity for meeting temperature changes, instead of being maintained or increased, is being constantly diminished, until we are almost wholly lacking in this beneficial protection and become fertile soil for the implantation of many infections, especially those affecting the respiratory tract.

WM. T. JOHNSON, M.D.

Philadelphia, Pa.

Look for THE LEISURE HOUR among the advertising pages at the back.

## New Therapy for Psoriasis†

WE have treated 50 patients with psoriasis with intramuscular injections of an alcoholic suspension-solution of autogenous scales. About 0.2 Gm. of scales were obtained, ground up, and about 25 cc. of pure grain alcohol added. The initial doses injected in the gluteal region were 0.5 cc., and after three doses increased to 1.5 cc., which was not exceeded. The injections were given twice weekly. Improvement usually was noticed after 6 injections.

The following results were obtained: In 10 cases the patients did not continue therapy; in 30 cases, with generalized eruptions, cure was obtained in 10, improvement in 19 and aggravation of the condition in 1; in none of 10 cases, in which there were only a few lesions, did healing result, but in 2 improvement was noted.

This treatment is of specific value in generalized eruptions of long standing which have resisted other forms of treatment. The injections may, however, have to be continued for a considerable period.

DRS. H. S. CAMPBELL AND K. FROST.

<sup>\*</sup>Arch. Physic. Therap., X-Ray, Radium, Jan., 1933.

<sup>†</sup>Arch. Dermat. & Syphil., Sept., 1932.

# DIAGNOSTIC POINTERS

#### Thyroid Gland and the Autonomic Nervous System

THE autonomic nervous system plays an important part in the symptom complex associated with hyperthyroidism. This factor merits greater consideration in the treatment of the disease than is usually accorded it, since the sympathetic hyperirritability resulting from this disease, or associated with it, in turn affects the thyroid gland unfavorably. Measures which tend to restore the functional balance of the autonomic nervous system, therefore, would also tend to remove one of the chief sources of irritation of the thyroid gland.—Dr. A. Kuntz, of St. Louis, in Radiology, Mar., 1932.

## Cancer of the Blood (Leukemia)

THE leukemias possess all the biologic and histologic characteristics to warrant their classification as malignant tumors (cancers) of the blood, and should be treated on that basis.—ROBERT A. KILDUFFE, M.D., in Hygeia, Feb., 1932.

# Morphine Addicts

REGARDING the morphine addict, you may effect a cure in one of twenty years' duration and not be able to do so in one of only a couple of months' duration. This may seem peculiar, but it is not so much the drug as the individual, especially the personality and make up, which influences the prognosis.—Dr. L. R. Young, of Covington, La., in Tri-State M. J., Mar., 1932.

#### Pulse Pressure

N THE young, the pulse pressure should be about 40 or 50 mm. It can be set down with certainty that, in the young, the diastolic pressure should not exceed 80 and, with increasing years, should not exceed 90 millimeters at any age. Seventy (70) for the one and 80 for the other is safer. Ninety-five (95), at any age, is pathologic, no matter what the condition.

As the diastolic rises above the normal, the systolic is likely to fall, in the earlier stages of some depressing forms of disease, thus reducing the pulse pressure. In the earlier stages of arteriosclerosis, a toxic condition and impaired function of the ultimate cells of the body, there will be a gradual rise of all pressures, the diastolic to 100, the systolic 160, the

pulse pressure to 60. The pulse pressure gradually rises with increasing cardiovascular disease. A sudden drop in systolic pressure, with stationary diastolic pressure, is a very serious condition.—Dr. J. S. Lankford, of San Antonio. in Med. Record & Ann., July, 1932.

## Allergic Rhinitis

N many instances it is difficult or impossible, by macroscopic examination alone, to differentiate allergic rhinitis from infectious rhinitis. There is often a rather characteristic appearance of the nasal mucous membrane in an allergic individual; the mucosa is bluish-gray or pale pink, quite wet and so swollen as to be in contact with the septum. The secretion usually is mucoid and gray, in contradistinction to the yellow color seen in infectious rhinitis.—Dr. M. F. Arbuckle, in J. Missouri S.M.A., Dec., 1931.

#### **Duodenal Ulcers**

LCERS of the first portion of the duodenum practically never become carcinomatous. The problem of duodenal ulcer which concerns the surgeon in this country is whether definite, grossly visible ulceration exists in the antrum of the stomach, associated with duodenal ulcer. If not, conservative procedures, such as excision of ulcers, pyloroplasty and gastroenterostomy, are indicated. Clinical experience shows that the mortality is less than 1 percent, with permanent cures in more than 90 percent. If the ulcerations are diffuse and if they involve the stomach and duodenum, partial gastrectomy is advisable.-Dr. W. WAL-TERS, of the Mayo Clinic, Rochester, Minn., in Surg. Gynec. & Obstet., Sept. 1932.

#### Leukorrhea

N PERSISTING leukorrhea, the most commonly encountered condition is an old laceration of the cervix. The discharge here is due, not so much to the tear as to the subsequent eversion, erosion and chronic inflammation of the cervical glands. The tear is usually healed but leaving the mucosa badly exposed. The appearance is typical. In most cases the discharge is copious, fairly thin and purulent; it may be thick, stringy and muco-purulent.

The treatment is surgical and consists of the removal of the infected gland-bearing tissue, with repair of the laceration. In all cases, the treatment must aim directly at the removal of the exciting cause.—Dr. C. W. Ashburn, of Statesville, N. C., in Southern M. & S., Feb., 1932.

# Sign of Sinusitis

WHAT appears to be a pathognomonic sign of paranasal sinusitis is swelling of the loose tissue of the lower eyelid in its outer third—a roughly triangular area over the prominence of the malar bone. This should be looked for in an oblique light, which will cast a shadow if the swelling is present.—Drs. LOEBER, MCCOMISKEY and HENDERSON, in J. Pediat., Nov., 1932.

## Pregnancy and Syphilis

EVERY pregnant woman should have a Wassermann test made, without discussing the matter with her or making excuses for doing so. If she is found to have syphilis, she should be vigorously treated during her pregnancy, for this disease, unlike gonorrhea, can be thus controlled.—Dr. Edward L. Keyes, in Am. J. Obst. and Gynecol., July, 1933.

#### Disease and the Man

T IS much more important to know what sort of a patient has a disease, than what sort of disease has a patient.—Dr. Parry, of Bath.

# Indigestion

NDIGESTION is generally believed to result from disease of the stomach. As a matter of fact, less than one-fourth of stomach upsets are due to gross disease in the stomach itself.—Dr. Frank Smithies, Chicago, in Edgewater Hosp. Staff News, July-Aug., 1982.

# **Acute Anterior Poliomyelitis**

A CUTE anterior poliomyelitis is an acute general infection.

The microbe of infantile paralysis is known to belong to the class of invisible, filter-passing micro-organisms, to which the name of viruses is applied.

This virus has been found in the secretions of the none and throat of persons ill of poliomyelitis and of well persons in contact with the sick.

Communication of the disease from person to person is brought about by personal contact.

One attack of anterior poliomyelitis, irrespective of its intensity, is protective for life.

Many cases never show paralysis at all.

Cases diagnosed in the preparalytic stage can, by means of convalescent serum, pass through the disease without developing paralysis.

It is possible, after paralysis develops, to prevent contractures by mechanical means.

In the later stages, we have at our disposal means, such as manipulation, tendon transplantation, tendon fixation, arthrodesis and various bone operations, to correct some and improve the majority of the deformities.—
DR. J. GROSSMAN, of New York, in M. J. & Record, Jan. 6, 1932.

#### Differential Arterial Tension

DIFFERENCES in readings of the arterial tension on the two sides of the body occur in approximately 15.7 percent of adults. It is more common in persons with elevated arterial tension and in those with vasomotor instability.—Drs. E. J. STIEGLITZ AND D. W. PROPST, of Chicago, in Am. J. Med. Sc., Sept. 1932.

#### The Subcutaneous Tuberculin Test

WHEN tubercle bacilli are not found in the sputum, an infallible diagnosis of pulmonary tuberculosis cannot be made, either by the tuberculin test or by roentgenograms alone. In many cases the ultimate diagnosis, whether right or wrong, must be made by these tests in conjunction with history, symptoms and physical signs in the chest. Where no abnormal physical signs can be detected, diagnosis, in the main, depends on tuberculin, in conjunction with roentgenoscopy and roentgenograms.—Dr. H. Sutherland, in Practitioner (Lond.), Aug., 1932.

# Congenital Syphilis in the New-Born

N SUITABLE cases, in which the Wassermann reaction of the mother's blood is positive, repetition of the Wassermann test on the new-born infant at frequent intervals will aid in differentiating between reactions that indicate a true syphilitic infection and those that are positive because of the passage of antibodies from the mother to the infant.—Dr. ETHEL C. DUNHAM, of New Haven, Conn., in Am. J. Dis. Child., Feb., 1932.

# **Pregnancy Toxemia**

R ISE of blood pressure is the most important sign of pregnancy toxemia. It preceded albuminuria, in 13 cases out of 48, by periods ranging from 11 to 89 days.—Dr. H. White, in Practitioner (Lond.), Sept. 1932.

# **NEW BOOKS**

Any book reviewed in these columns will be procured for our readers if the order, addressed to CLINICAL MEDICINE AND SURGERY, North Chicago, Ill., is accompanied by a check for the published price of the book.

> What a joy there is in a good book, writ by some great master.-Porter.

#### Gordon and Brown: Paralysis in Children

P ARALYSIS IN CHILDREN. By R. G. Gordon, M.D., D.Sc., F.R.C.P. (Ed.) Physician, Bath and Wessex Orthopaedic Hospital; Physician, Royal United Hospital, Bath; Hom. Physician, Institute of Medical Psychology, rnystoun, institute of medical Psychology, Torrington Place, London; Consulting Neurologist, Stoke Park Colony for Mental Defectives, Stapleton, Bristol, Etc.; and M. Forrester Brown, M.D., M.S. (Lond.) Surgeon, Bath and Wessex Orthopaedic Hospital; Surgeon to County Orthopaedic filinic. Wilthite. geon to County Orthopaedic Clinics, Wiltshire, Somerset and Dorset. London and New York: Humphrey Milford, Oxford University Press. 1933. Price \$4.50.

This book has been written from a standpoint: it endeavors to combine orthopedics and neurology, showing how the two subjects dovetail into each other, as applied in the treatment of paralysis in children.

There are three parts. Part I opens with a consideration of the physiology of movement, the general pathology of paralysis and the interpretation of various symptomatic syndromes. Part II is cinical; it covers the paralyses usually observed in children: the muscular dystrophias, anterior poliomyelitis, birth and traumatic parlysis, spastic paralysis, the choreas, facial paralysis and other less frequently observed entities. These are illustrated by cases which have come under the authors' personal notice, chosen especially to show the difficulties in diagnosis and treat-In Part III the general lines of treatment to be followed in cases of paralysis are dealt with, especially those of non-operative orthopedics and physical therapy. Purely surgical operative technics are not given, as the authors consider they are fully described in current textbooks. The indications for operations are, however, pointed out.

The book is well written. Controversial matters are avoided. The main objects which the authors stress are that it is absolutely necessary to have a clear idea of the orthopedic principles which must be followed and of the neurologic background of the particular case, if success in treatment is to be attained.

Although the volume is a short one, it is pithy and contains much that will be of value to orthopedists and pediatrists, as well as to general surgeons who deal with these types of children's diseases.

### McCollum and Becker: Nutrition

FOOD, NUTRITION AND HEALTH. By E. V. McCollum, Ph. D., Sc.D. and J. Ernestine Becker, M.A. Professor, and Associate, of Biochemistry, School of Hygiene and Public Health, Johns Hopkins University, Baltimore, Maryland. Third Edition, Rewritten. Balti-more, Md., East End Post Station: E. V. Mc-Collum and J. Ernestine Becker. 1925. Price \$1.50.

This book, covering the subject of adequate diet and nutrition from the standpoint of a blochemist, is written in a non-technical manner. It discusses proteins, carbohydrates, vitamins and mineral substances, their significance in nutrition and their action in normal and abnormal conditions of the body.

Since its last revision in 1928, much new knowledge has accumulated in this field and this material is nicely presented in under-standable language. In addition, it contains a list of adequate diets and menu suggestions, tables of the caloric values of foods, and a reducing and weight-increasing diet. There is also a comprehensive table of the vitamin values of foodstuffs; for this latter table the percentage of vitamin content is still listed as 1 plus to 3 plus or minus. Let us hope that, in the near future, this manner of designation may be revised to give "units of vitamins per gram," supplying us with figures, as is done in caloric value definition.

C. F. L.

# Cabot: Right and Wrong

THE MEANING OF RIGHT AND WRONG. By Richard C. Cabot, M.D., Professor of Social Ethics and of Clinical Medicine, Har-vard University. New York: The Macmillan Co. 1933. Price \$3.50.

It is time that someone gave the world a conception of ethics extending beyond the petty confines of the direction of personal conduct (which is the field of morals, rather than ethics, and is an individual matter, anyway), and embracing the relations of nations, communities and groups. If we cannot get a new, sane and inclusive orientation of ethics to meet our present problems, the future of our so-called civilization seems doubtful.

Boiled down to its basic skeleton, Cabot's ethical program for all organisms, from na-tions to men, is: Keep your promises, to yourself and others: pay your debts, of all kinds; and face reality—colloquially, "don't kid yourself." He sees the purpose of life as growth and progress toward an unimaginably glorious and distant goal, and the best way of furthering this progress—for each man to act according to the individual pattern of his own life.

Ethics as intellectual and emotional acrobatics is senseless. If it will not work in life, why bother with it? Cabot has here succeeded in implementing ethical concepts with working technics, one of the most potent of which is to discover and desist from self-deception. He says, "The attempt persistently to hug our present comfort involves us in slow degeneration."

Taking up the various bases of ethical conduct or the reverse, he deals with the phases of consistency, growth and self-deceit in a manner so fascinating that it is difficult to lay the book aside. Fully discussed illustrations of his points add interest and clarity.

Among a flood of worthwhile books, this is one of the most enlightening and helpful to real thinkers. Cabot's use of English is masterly and artistic; his logic is water-tight; and the breadth of his vision and simple and direct power of his presentation a real joy

This is a volume which no keen and open minded thinker can afford to miss, in these days when most of humanity seems to be "groping about in a room full of steam, on a floor of cotton-batting."

#### Le Comte: Urology

MANUAL OF UROLOGY, By R. M. Le Comte, M.D., F.A.C.S.,; Professor of Urology, Georgetown University Medical Depart-Member ber of the American Urological Baltimore: William Wood and Association. Company. 1933. Price \$4.00.

This is a manual which sets forth briefly the fundamentals of urology, so that they can be grasped readily by the student or prac-titioner. It contains only material of basic importance-the recognized conclusions pertaining to examination, diagnosis, and treat-ment. The student will welcome it because it teaches facts without the non-essential discussions, opinions, case reports, etc., of the usual textbook. Its ten chapters are devoted to Methods of Examination, Symptomatology, Methods of Treatment, Surgical Diseases the Kidneys, and Diseases of the Bladder, Prostate, Seminal Vesicles, Urethra, Penis, and Scrotol Contents. The 46 illustrations have been well chosen to show or clarify some feature or finding in examination, anatomic structure, or treatment. It is the most compact, and yet basically complete, book on urology available.

# Chapman: Pyramid Prophecy

THE PROPHECY OF THE PYRAMID. A Dated Forecast of Our Times With the Depression's Purpose and Its Aftermath Foretold. By Arthur Wood Chapman. Holyoke, Mass.: Elizabeth Towne Co., Inc. 1933. Price

The Grand Pyramid (known as the Pyramid of Cheops or of Gizeh) has been a fascinating field of study for scientists for nearly a century, but only relatively recently have we come to realize what it is and means—a stupendous proof of the power and erudition of those who planned and built it, thousands of

years ago, and a history and prophecy of the

course of this present race of human beings. Several large and scholarly books have been written, going into full details pyramid measurements and their significance, but this is a very brief and sketchy outline of these findings, serving merely to show that they have validity and practical meaning for this generation. It is interesting to note that the pyramid students prophesied the exact dates of the beginning and end of the World War, long before the events.

This little, paper-bound book is intended to show the uninformed that this "depreshas a clear meaning and purpose, and to indicate something of their direction and scope. Physicians and other thoughtful persons will do well to read and think about it.

#### Price-Jones: Red Blood Cell Diameters

RED BLOOD CELL DIAMETERS. By Cecil Price-Jones, M.B. (Lond.) London and New York: Humphrey Milford, Oxford University Press. 1933. Price \$3.50.

first part of this brief work dealing with the methods employed in the measure-ment of red blood cell diameters, is of a technical nature and of particular interest to laboratory workers. The clinician will, however, find a good deal of interesting information regarding variations of the cells in the anemias -both pernicious and microcytic-and other diseases; also regarding the changes in the measurement of the red cells following liver therapy. These chapters are illustrated with illuminating charts which are easily followed, and a study of which may be applied to the diagnosis and prognosis of anemic conditions. A scientific, well-written monograph.

#### Harris: Bone Growth

BONE GROWTH IN HEALTH AND DIS-EASE. By H. A. Harris, D.Sc. Lond., M.B., B.S., (Lond.), B.S. (Wales), M.R.C.S., M.R. C.P., Professor of Clinical Anatomy, University College and University College Hospital, London; Hunterian Professor and Arris and Gale Lecturer of the Royal College of Surgeons. New York and London: Humphrey Milford, Oxford University Press. 1933. \$10.50

The biologic principles underlying the clinical, radiologic, and histologic diagnosis of perversions of growth and disease in the skeleton are presented in this publication. years of investigation have gone into its pages.

The approach, in Part I, is based on a study of arrested growth in disease and in experi-mental animals. The application of the study to diseases of children and animals forms the main current of Part II. In Part III is incorporated such material as the distribution of the mitotic zones in cartilage, and the reversions to primitive morphologic characters which characterize the age changes in the skeleton, to serve as an index of the work

to be pursued in the future.

The author states that the romance of bone is not yet exhausted; and that the manifestations of disease in bone, the registration of lines of arrested growth in the long bones, the response of certain deficiency diseases to vitamins, the age changes in bone, and the extent to which the child can grow out of diseased conditions still present fundamental problems in clinical research and biology.

The book is unique and will be of especial appeal to all who are interested in bone growth. Heavy enamel paper is used. Many of the illustrations are striking.

## Hierarchy

HIERARCHY. New York City, 310 Riverside Drive: The Roerich Museum Press. 1933 Price: \$1.50.

Here is a book for fairly advanced students of occultism, and even these will not all get much out of it on casual perusal. The real power of the book comes with repeated reading and deep thought. Every paragraph might be taken as the subject of an essay or the text of a sermon.

And yet even a casual reader, if he is a sensitive and thoughtful person, will find, here and there, phrases or sentences which leap out and take a permanent place in the mind.

"How little must humanity ponder over the idea of responsibility, when the concept of Shambhala (Heaven?) is regarded by people as a land ordained for rest."

"Mean thoughts have been compared to restline restline.

crawling reptiles."

"Accustom yourselves to see without look-

ing and to hear without listening."
"It is useful to observe how our consciousness is purified through the labor of every-

There are even occasional trenchant para-

graphs that bear upon the healing art.

To most people this little volume will appear to be filled with meaningless words. A few will find in it the seeds for high thinking.

#### Lusk: Nutrition

UTRITION. Clio Medica Series. By Graham Lusk, Sc.D., M.D., LL.D., Late Professor of Physiology, Cornell University Medical College, N. Y.; etc. With 13 Illustrations. New York: Paul B. Hoeber, Inc. 1933. Price

\$1.50.
This is one of a series of primers in the history of medicine—a most fascinating and instructive book, which will delight the historian, the scientist, the physician and the intelligent layman alike. From it the physiclan may derive entertainment, "food for thought" and wholesome stimulation to carry on his efforts of improving and relieving suf-fering humanity. The presentation of the subject is characteristic of the great literary authority and brilliant research man who wrote it. The book is pocket sized, beautifully and appropriately illustrated, and inexpensive.

# Medical Clinics

MEDICAL CLINICS OF NORTH AMERICA. Chicago Number. Volume 17, No. 2, September, 1933. Philadelphia and London: W. B. Saunders Company. Issued serially, one number every other month. Per clinic year, July, 1933, to May, 1934. Price: Paper \$12; cloth \$16.

The September, 1933, number of the Medical Clinics of North America consists of 17 papers contributed by 20 physicians associated with the medical schools and allied hospitals of Chicago. The first five papers constitute a symposium on blood dyscrasias, presenting a

group of cases of leukemia, agranulocytosis, hemophilia, polycythemia and aplastic anemia. This symposium is especially appropriate these diseases are being encountered with increasing frequency and may well be

with increasing frequency and may wen be met with by any practitioner of medicine. Other subjects considered include: (1) In-fluenza; (2) The Diagnosis of Poliomyelitis; (3) Cinchophen Poisoning; (4) Tuberculosis of the Skin; (5) Ulcerative Colitis; (6) A Case of Addison's Disease Treated with an Extract of Suprarenal Cortex; and (7) Treatment of Coronary Thrombosis. The articles are all distinctly practical, making this num-ber of the Medical Clinics one of the most useful that has been issued.

### Knopf: Tuberculosis

REPORT TO THE UNITED STATES GOVERNMENT ON TUBERCULOSIS, WITH SOME THERAPEUTIC AND PROPHYLAC-THE STORE THE AFEUTIC AND PROPHLAC-TIC SUGGESTIONS. By S. Adolphus Knopf, M.D. Revised and Enlarged Report submitted to the State Department, War Department and War Veterans Bureau as Government Delegate to the International Union Against Tuberculosis Held at The Hague, Sept. 6-9, 1932. New York City, 450 Seventh Avenue, The National Tuberculosis Association. 1933. Price \$1.15.

This is a brief and interesting report of the author's impressions of the Tuberculosis Conference, held at The Hague, Holland, in September, 1932, and deals with the use of gold-sodium thiosulphate (Sanocrysin) in the treatment of tuberculosis (5 pages) and, chiefly, with the after-care of civilians and ex-soldiers, in Europe and the United States, whose tuberculosis process has been arrested. Great stress is laid upon the use of diaphragmatic respiration as an adjunct to or substitute for pulmonary collapse therapy. Chapters are devoted to the prevention of tuberculosis in children, special exercises for expelling residual air (well illustrated) and skin tuberculosis and salt-free diet.

The book has been well printed by recovering tuberculosis patients at the Potts Memorial Hospital, contains a number of interesting illustrations, and will be valuable to all physicians who treat tuberculosis patients.

# Hart: American Year Book

THE AMERICAN YEAR BOOK. A Record of Events and Progress Year 1932. Editor, Albert Bushnell Hart, LL.D.; Associate Edi-tor, William M. Schuyler. Edited with the tor, William M. Schuyler. Edited with the Cooperation of a Supervisory Board Repre-senting National Learned Societies. New York.

The American Year Book Corporation, 229 West 43rd Street. 1933. Price: \$7.50. More than ever before, it is necessary that thinking people keep themselves abreast of the sudden and revolutionary changes that are taking place in the structure of society and government and in the various fields of re-

Here is a volume which will keep the intelligent observer of affairs as nearly up to the minute as it is possible for a bound volume to do—a current encyclopedia of American progress, dealing with history, government. economics and business, social conditions, sci-

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with a surprisingly timely and varied collection of material which is needed almost daily by those who aspire to play a worthy part in the revolutionary changes in the business of living which are now in progress.

## Claoue: Vestibular Nystagmus

NYSTAGMUS VESTIBULAIRE ET LES REACTIONS DE MOUVEMENTS. Bu R. Claoué, Professor of Oto-rhino-laryngology, of Bordeaux, France. Published by Norbert of Bordeaux, France. Published by Norbert Maloines, 27 Rue de L'Ecol-Medicine, Paris.

The book presents essential facts of all the The book presents essential facts of all the tests used in vestibular nystagmus and body and trunk movements. The various tests are so arranged that they can be readily referred to. The arrangement of the book and its headings into chapters explaining the specific tests in a clear, concise methodical manner, is helpful.

The introduction summarizes the anatomy and physiology essential to the understanding of the pathologic conditions which are to follow, for the diagnosis of both labyrinthine and central lesions. The author does not go into a great number of theories, but rather demonstrates the practical side of the subject. H. G. LaR.

#### Rose: Keeping Young

H OW TO STAY YOUNG. By Robert Hugh Rose, A.B., M.D. Former Instructor, Post-Graduate Medical School, New York; Author of "Eat Your Way to Health"; Also Author of Many Articles on Diet and Health in Medi-cal and Other Magazines. New York and Lon-don: Funk & Wagnalls Company. 1933. Price:

The thesis advanced in this practical volume is that, in general, senility is the result faulty diet and intemperance in lines, especially in eating. The author feels that there is no sound reason why human life, on the average, should not extend to 90 or 100 years, and the period of high accomplishment at least to 70.

This is not merely a collection of pleasant platitudes, but a manual of specific living di-rections (including complete menus) for those who desire to retain their activity and vitality to what is now considered an advanced age.

Dr. Rose may be a fanatic on the subject of diet, but, on the whole, his advice is sane and reasonable and has a sound scientific basis.

Here is a book which physicians can study with profit to themselves and can safely rec-

ommend to their patients, as a guide to a long, useful and enjoyable life.

# Martin: Medical Statistics

HOSPITAL MEDICAL STATISTICS. A Brief Description of the System Used in the Department of Hospitals of the City of New York. By Caroline R. Martin, M.D., Di-rector, Central Medical Statistical Bureau rector, Central Medical Statistical Bureau New York Department of Hospitals. Philadelphia, Montreal, London: J. B. Lippincott Com-1932. Price \$1.00.

If hospital records are to be of the greatest possible value (or, perhaps, of any real scientific value), they must be carefully kept,

cross-indexed and coordinated in large num-

In order to do this work with a minimum expenditure of time, effort and money and a expenditure of time, effort and money and a maximum of efficiency, the Central Medical Statistical Bureau was organized to handle the records of the Department Hospitals of New York City, which have a combined capacity of 17,199 beds and discharged 213,563 patients in 1932. This bureau has adopted the statistical methods employed in large business institutions.

ness institutions.

This well-made little book, by the director of the Bureau, contains full details of the methods used and many valuable suggestions for preparing and correlating medical records, and should be in the hands of all hospital superintendents and others in any way concerned with the handling of medical statistics.

## Walker: Enlarged Prostate

THE ENLARGED PROSTATE AND PROS-TATIC OBSTRUCTION. By Kenneth M. Walker, F.R.C.S., M.A., M.B., B.C., Jacksonian Prizeman and Hunterian Professor, Royal College of Surgeons, 1911, 1922, 1924, 1933; Lecturer in Venereal Diseases, St. Bartholo-1933: mew's Hospital; Surgeon with charge of Genito-Urinary Department, Royal Northern Hospital; Surgeon to St. Paul's Hospital. Sec-ond edition. New York and London: Humphrey Milford, Oxford University Press. 1933. Price \$4.25.

The first edition of this work was published in 1923. This second edition differs from it chiefly in the parts devoted to treatment, many changes having come about in the past ten years. The new method of treatment dealt with most fully is per-urethral prostatic resection. New chapters have been added on malignant changes in the prostate and on the mechanism of obstruction. Whole chapters are devoted to suprapubic prostatectomy, perineal prostatectomy, and per-urethral op-erations; also to anesthesia. Illustrations are limited to matters that are definitely instructive. For those who wish to refer to the literature, pertinent references appear throughout the book.

This edition is intended chiefly for practitioners and general surgeons, but is an excellent reference book for any one interested in the modern methods of dealing with the diseased prostate.

#### Lichtwitz, Liesegang and Spiro: Colloids in Medicine

MEDIZINISCHE KOLLOIDLEHRE. Leife-rung 6 and 7. Herausgegeben von Prof. Dr. L. Lichtwitz, Direktor der I. Inn. Abt. des Rudolf-Virchow-Krankenhauses Berlin; Dr. Dr. Raph. Ed. Liesegang, Frankfurt a.M.; and Prof. Dr. Karl Spiro, Direktor des Physiologisch-Chemischen Instituts der Universität Basel. Mit Vielen Abbildungen. Dresden und Leipzig: Verlag von Theodor Steinkopff. 1933. Price, Rm. 5, each.

(SEE CLIN. MED. & SURG., Feb., p. 130, and Oct., p. 562, 1933.)

# MEDICAL NEWS



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# Nobel Prize to Dr. Morgan

THE Nobel Prize in Medicine for 1933, amounting to \$40,000, has been awarded to Thomas Hunt Morgan, Ph.D., of Pasadena, Calif. (whose portrait appears above), for his work on the eugenic function of the chromosomes, done in the William G. Kerckhoff Laboratories of Biological Science, of which he is director. These studies were made upon fruit flies (Drosophilia melanogaster), because their rate of reproduction is 800 times as fast as that of human beings.

Dr. Morgan, who is sixty-six years old, is a native of Kentucky and was graduated from the State College there, receiving his Ph.D. from John Hopkins University. He became professor of experimental biology at Columbia University and, in 1928, went to the California Institute of Technology.

#### Dr. Dakin Receives Conne Medal

THE Chemists' Club has recently awarded the Philip A. Conné memorial medal to Dr. Henry Drysdale Dakin, for his work which led up to the production of the antiseptic solution which bears his name and which came into such prominence during the War.

Dakin is a native of London, Eng., and received his B.Sc. from Victoria University, Manchester, and his D.Sc. from the University of Leeds. He came to this country in 1905, has been associated with the Russell Sage Foundation and other institutions and is the author of several chemical textbooks.

MINISTÈRE DE LA SANTE PUBLIQUE



# Achetez le nouveau timbre antituberculeux

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# French Anti-Tuberculosis Stamp

THIS picture shows how the French Ministry of Public Health calls upon the public to buy the anti-tuberculosis stamps which correspond to our "Christmas Seals."

Those who have good eyes or will use a magnifying glass, will be interested to see, at the bottom of the stamp, that the method recommended for protecting children is B.C.G. (Bacillus Calmette-Guerin) vaccine.

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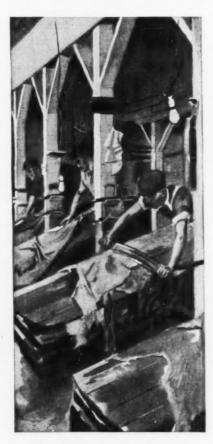
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